BRADY®

WHEN PERFORMANCE MATTERS MOST™

BMP® 91 Tubing & Label Printer
User Guide

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1. Before You Begin

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A. Introduction

Before you start using the printer, please read this chapter, especially the safety precautions in the Do's & Don'ts section.

The BMP®91 printer can print text, serial numbers, barcodes and other symbols on tubes (up to 7.0 mm in internal diameter) and labels (up to 12.0 mm wide). Other special features supported include:

- Fast printing speed (up to 25 mm/s)
- Long lasting battery (up to 2 hours)
- Large capacity ribbon cartridge (up to 200 m)
- 3.5" 320x240 pixel resolution, 256k colors TFT LCD display
- Automatic font sizing (so that more characters can be entered)
- Background printing while you continue editting
- Printing on high-quality Brady labels

B. Icon & Text Conventions

For easier reference, this guide follows these conventions:

Table 1-1. Icon Conventions:

Icon	Function
	Note: Information highlighted by this gives you tips or additional instructions that are useful.
	Caution or warning: Information highlighted by this tells you how to avoid actions or situations that may damage your device or endanger you.

Table 1-2. Text Conventions:

Text Style	Function
italics	Name of a graphic, figure and/or table.
UPPERCASE	Name of a menu or submenu; or an acronym.
"xyz"	Name of an item (e.g. "xyz") on the LCD screen.
[xyz]	Name of a key (e.g. "xyz") on the keyboard.

C. Do's & Don'ts

To ensure safe operation of your BMP®91 printer, please observe the following safety precautions.

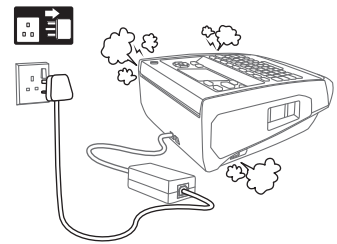
DO

- **Unplug** the printer when cleaning or when not in use.
- **Use** only a 100-240V AC power supply, the AC adapter and the cartridges designed for this printer. Otherwise, a fire, electrical shock or printer failure could happen.
- **Use** only the USB cable supplied with the printer package. Other USB cables may fail to enable printing from a PC.
- **Handle** the printer and the AC adapter with care.**Protect** the printer and AC plug from humidity and dust. E.g. Place placing the devices in a cool, dry place. Clean them periodically. Dust, dirt, soot, etc that accumulate could absorb moisture, creating an insulation fault that may cause a fire.
- **Keep** the area around the AC adapter clear so that the printer can be unpluged quickly in an emergency.
- **Keep** the area around the printer's tube/label outlet clutter free, i.e., prevent the tube/labels from accumulating there and thus jamming the exit.
- **Keep** small children away from the consumables.
- **Turn off** the power switch before unplugging or plugging.
- **Hold** the plug (not the cord) and push it firmly into the outlet.
- **Hold** the printer handle securely.

If there is thunder, unplug the printer. Otherwise, a fire, electric shock or printer failure could happen.

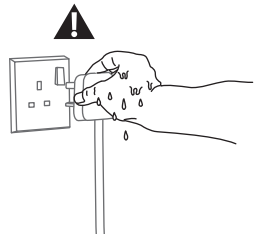
DON'T

- **Leave** the printer unused for a long time.
- **Continue** to use the printer **if an abnormality develops**, e.g. when smoke or an unusual odor appears. Unplug the printer and contact your nearest dealer at once.

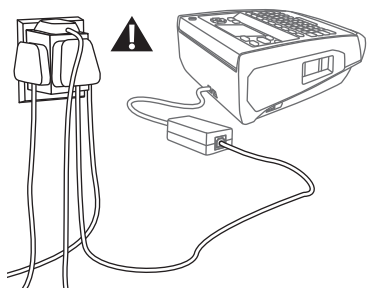


DON'T

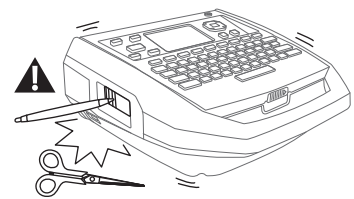
- **Handle** the power cord or the plug with wet hands. This could result in an electric shock.



- **Use** any AC adapter or cord other than the one provided in your package. This could result in fire, electric shock or printer failure.
- **Pull** the AC cord. This could damage the cord.
- **Connect** the printer to a **multi-outlet adapter or extension cord**. This could result in fire or electric shock.



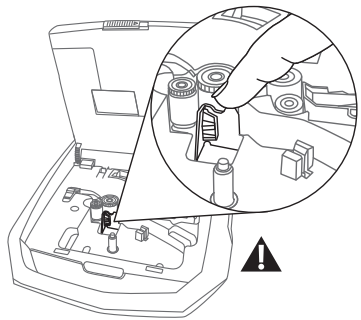
- **Clean** the printer with **paint thinner** or use **inflammable sprays** near the printer. The thinner or spray could come into contact with the internal components of the printer and cause a fire or electric shock.
- **Place** the printer **near water, heat sources** (such as sparks or flames) **or inflammable materials** (such as paint thinner and alcohol). This could cause a fire, electric shock or printer damage.
- **Place** the printer **on a rug or a carpet**. Fibers and dust could get inside the printer and cause a fire.
- **Place heavy or metal objects on the printer**. This could damage the printer.
- **Place** the printer **on an unstable surface**. The printer could fall or tip over, be damaged and/or cause injury.
- **Insert** your finger or other foreign objects into the sides of the printer. You could injure your finger and/or damage the printer.



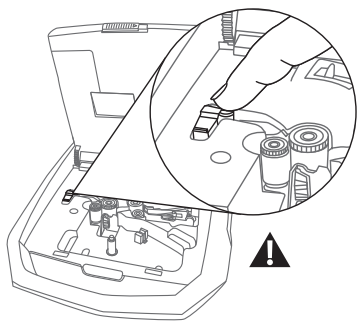
- **Feed wires into the printer**. This could damage the printer.

DON'T

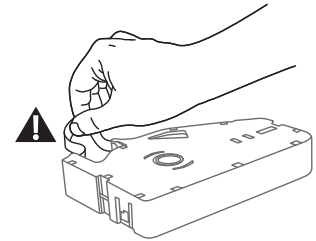
- **Touch the print head** while it is printing or immediately after printing. This could cause a burn.



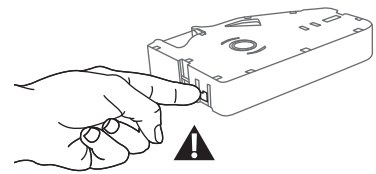
- **Touch the cutter**. You could injure your finger. To handle the cutter correctly, please refer to "6. Maintaining Your Printer".



- **Touch the ink ribbon**. This could stain your hands or result in poor printing.

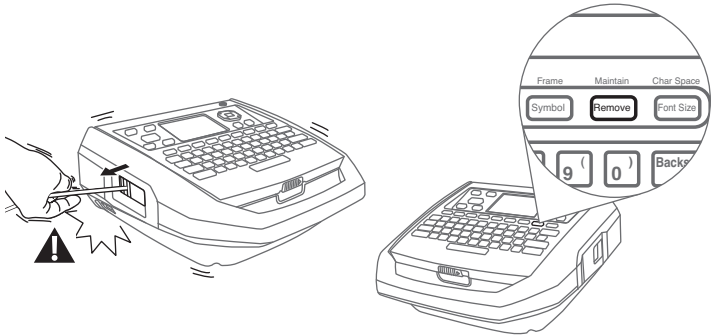


- **Re-use ribbons or label tape**. This could damage the printer.
- **Touch the connection terminal (metal part) of the cartridge**. This could cause an incorrect recognition of the cartridge.



DON'T

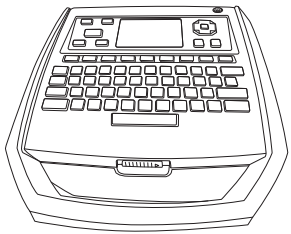
- **Attempt to pull a stuck tube out**. This could result in poor printing quality or other malfunctions. You can remove the tube easily by pressing the [Remove] quick key on the printer.



- **Disassemble or modify the printer**. This could damage the printer or cause a fire.

D. In This Package

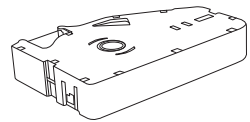
- **Unpack** your package and **verify** that you have the following items in the box:



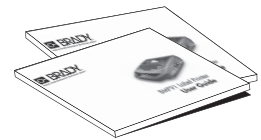
1 BMP®91 printer

1 USB cable

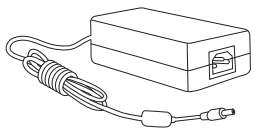
1 CD



1 black ribbon cartridge



1 Quickstart Guide &
1 User's Guide



1 AC adapter

- **Register online** at bradycorp.com/register and receive free product support and updates.
- **Save the packaging** surrounding your BMP®91 printer in the event that you need to ship the printer and its accessories while travelling or when returning them back to the supplier.

* The connectors in power plugs and wall sockets could differ in shape, size and type in different countries. Therefore, a power cord might not be included in this package for certain regions.

** The BMP®91 printer can also be powered by a Lithium-Ion 12V battery pack. However, since this is optional, a battery is not included in this package. You can buy one from a Brady dealer.

E. Travelling with your BMP®91 printer

When traveling with a BMP®91 printer, follow these tips:

- Turn off the device by pressing ⏻ [Power] and then OK [OK]. The printer will return the all mechanic parts to home position.
- Disconnect the USB cable and power adapter from the device.

  To prevent damage, wait till all lights are completely off before removing the battery or power cord.
- Remove the battery from the device if you will not be using the printer for more than a month.
- When traveling to another country/region, bring the necessary plug adapter with you.
- Use only the power adapter supplied with the device. Do not use any other voltage transformer or converter. You can use AC sources of 100–240 volts, 50/60 Hz.
- Place the printer and all its accessories in the original packaging material. You can also put them in a Brady hard-sided carrying case (optional) which has compartments for ribbon/label/heat-shrink cartridges, power adapter, CD-ROM, USB cable and Quick Start Guide/User Guide. (For more information, contact your local Brady dealer.)

If you are bringing extra or partially used media cartridges (whether ribbon, label, or heat-shrink tube), do not leave them inside the printer. Otherwise, whilst travelling, the medium in a cartridge may unwind. Load a cartridge only after reaching your destination.

F. BMP®91 Specifications

System Specifications:

- Dimensions (L x W x H): 275 x 275 x 109 mm
- Weight: 2.58 kg (with battery, no consumables)

  2.37 kg (without battery, no consumables)
- Output rate of up to 35 pcs/min (Note: segment length is 20 mm.)
- Thermal Transfer Print Head Resolution: 300 dpi
- Elastomeric Keypad
- 3.5" 320x240 pixel resolution, 256k colors TFT LCD display
- Maximum print width: 7 mm internal diameter (tubes), 12 mm (labels)
- Maximum print length (segment length): 300 mm
- Number of prints per battery charge: Up to 4000 20 mm segments
- Time taken to deplete battery with continuous printing = Appox. 2 hours

Future upgrades to the BMP®91 firmware can be downloaded from Brady's website. Access www.bradyid.com/BMP®91 or www.bradyid.com/ap BMP®91, click Support > Downloads, then select "BMP®91" from the list of products.

Environmental Specifications:

	Operating Environment	Storage Environment
Printer	Temperature: 15–35°C (59–95°F) Relative Humidity (RH): 20–85% non-condensing	-30–60°C (-22–140°F) Up to 90% non-condensing at 60°C (140°F)
AC Adapter	Temperature: 0–25°C (32–77°F) Relative Humidity (RH):	-20–85°C (-4–185°F) 5–90%
Battery Pack	Battery charging: 0– 45°C (32–113°F) Battery discharging or during use: 0–49°C (32–120°F)	A cool, dry place where the temperature does not exceed 49°C (120 °F). E.g., NOT in direct sunlight, a vehicle or a metal building during summer.

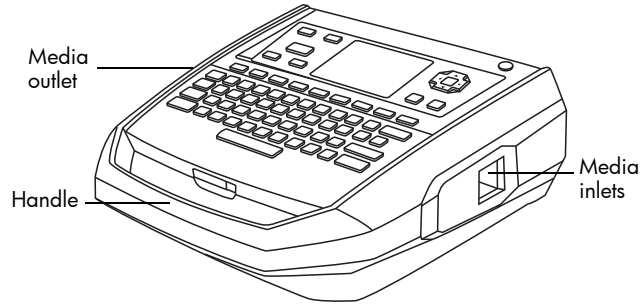
Be mindful, when using the AC adapter with the printer, that the adapter can withstand only a maximum temperature of 25°C (77°F).

Do not expose the battery pack to water or rain, or allow it to get wet.

G. External components of the printer

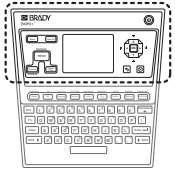
The external components of the BMP®91 printer include:

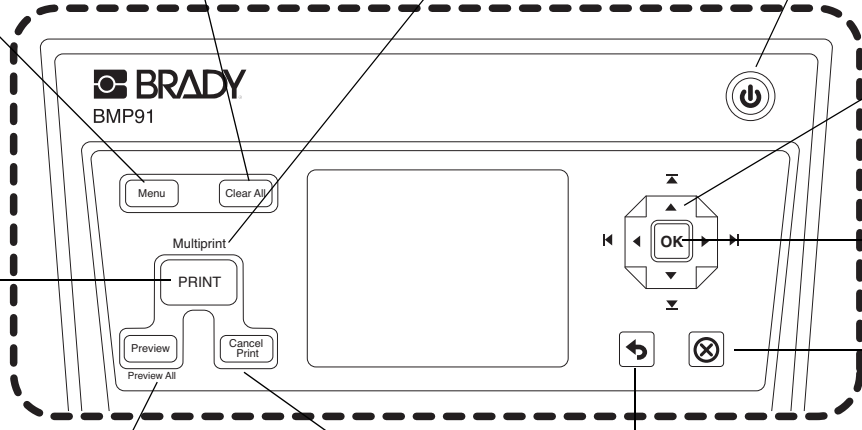
- a sturdy **handle** (see below) for secure handling of the device;



- two **Media Inlets** and one **Media Outlet** (details on page 16);
- a **QWERTY** keyboard (details on page 10);
- many types of keys (details on pages 9-11) for fast and easy access to important and commonly used functions. E.g. **Special keys** such as ⏻ [Power] and [Menu] [Menu]; **Quick keys** such as [Media] [Media] and [File] [File]; and **Function keys** such as "Application" ([Fn] [Fn]+ [Media] [Media]) and "Tag" ([Fn] [Fn]+ [File] [File]); and
- Lots of useful information on the **LCD screen**, such as the status of the medium used, the power supply, and the tag editor settings (details on pages 12-14).

The **special keys** *on the BMP® 91 printer.*





<**Menu**> key: Access all the printer functions via a multi-level menu.

<**Clear All**> key: Clear all the text and settings for the current editing job.

Multiprint (<**Fn**> + <**PRINT**> keys): Display the Advanced Print menu where you can select a range of tags and multiple copies for the current editing job.

<**Power**> key: Power on or off the printer.

Navigation pad: Move up [^], down [v], left [<] or right [>].

<**OK**> key: Confirm a selected item/action in a menu or a message window.

<**PRINT**> key: Print the current editing job according to the current settings.

<**Close**> key: Directly return to the Editor, regardless of the number of menu levels entered.

Preview or **Preview All** (<**Fn**> + <**Preview**> keys): View the printed tag with all formatted effects on the LCD.

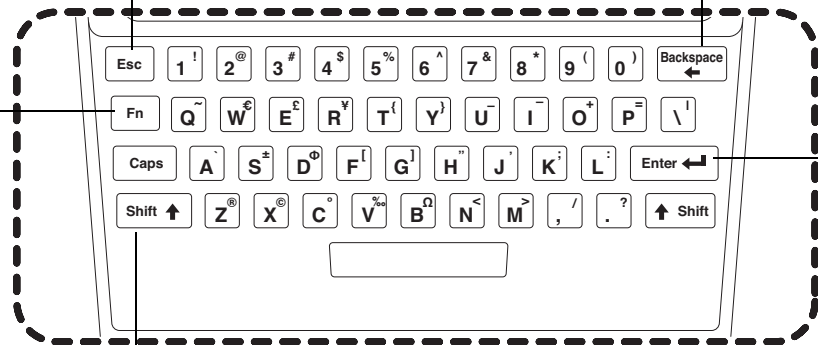
<**Cancel Print**> key: Immediately stop a current printing job.

<**Menu Return**> key: Go back to a previous level menu.

<**Esc**> key: Cancel the current changes and return to last Menu (same as <**Return**>); or Close the Message Windows (same as <**Cancel**>).

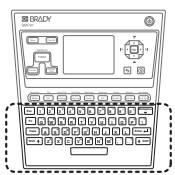
<**Backspace**> key: Delete the character on the left to the cursor in the Editor.

<**Fn**> key: Access additional functions (e.g. enter common symbols) when pressed with another key (with golden yellow text on it).



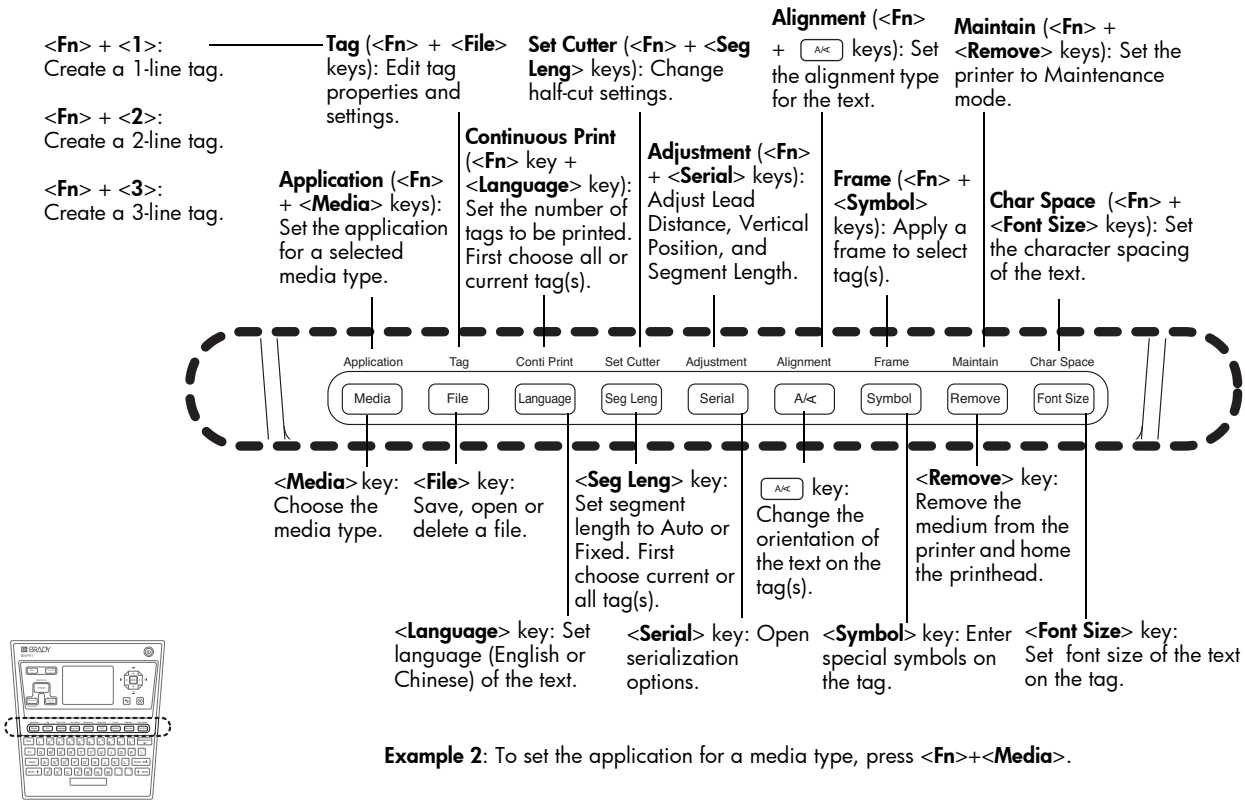
<**Enter**> key: Confirm a selected item on the LCD screen.

<**Shift**> key: Access additional functions (e.g. enter common symbols) when pressed with another key (with white text on it).

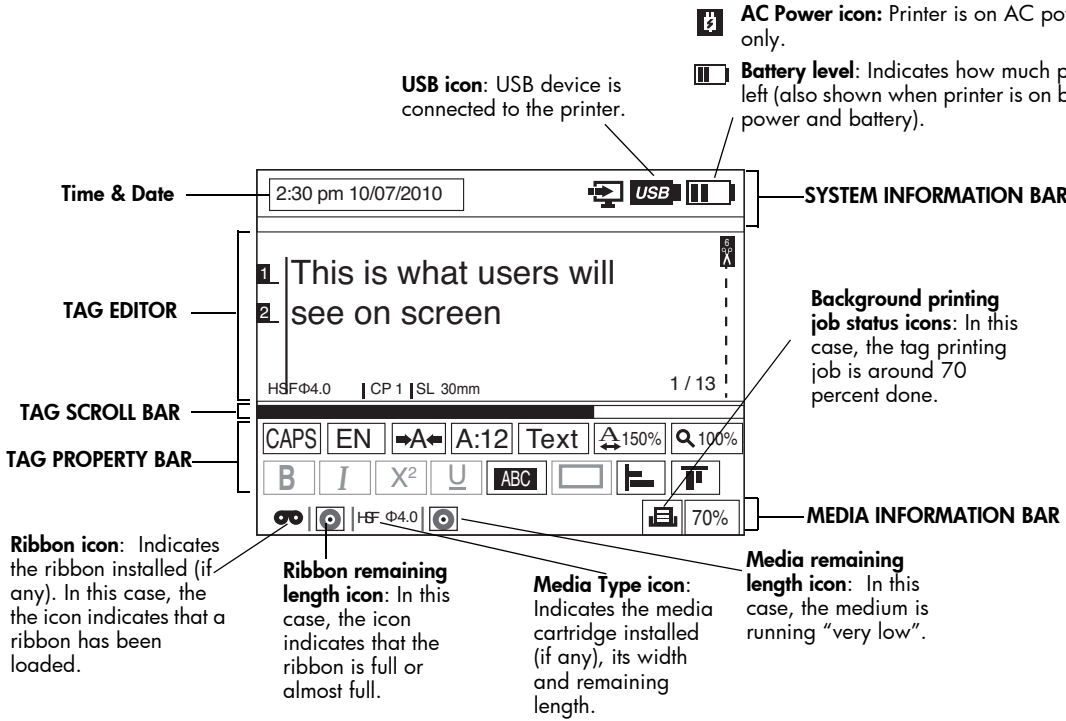


Example 1:
To enter a symbol such as "+", press the [**Fn**] key and the key that has a yellow "+" on it at the same time, in other words, press [**Fn**] + [**O**].
To enter a symbol such as "$", press the [**Shift**] key and the key that has a white "$" on it at the same, in other words, press [**Shift**] + [**4**].

The **quick keys** *and* **function keys** *on the BMP® 91 printer.*



Example 2: To set the application for a media type, press <**Fn**>+<**Media**>.

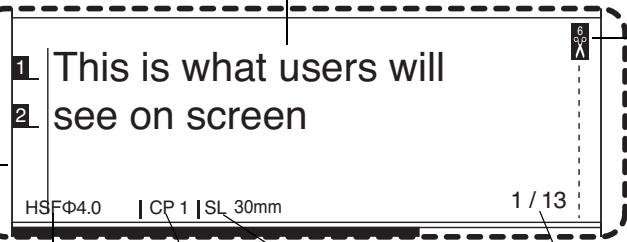

AC Power icon: Printer is on AC power only.
Battery level: Indicates how much power left (also shown when printer is on both AC power and battery).
USB icon: USB device is connected to the printer.
Time & Date
2:30 pm 10/07/2010
USB
SYSTEM INFORMATION BAR
TAG EDITOR
This is what users will see on screen
HSFΦ4.0 | CP 1 | SL 30mm
1 / 13
Background printing job status icons: In this case, the tag printing job is around 70 percent done.
TAG SCROLL BAR
TAG PROPERTY BAR
CAPS EN A:12 Text 150% 100%
B I X² U ABC
70%
MEDIA INFORMATION BAR
Ribbon icon: Indicates the ribbon installed (if any). In this case, the the icon indicates that a ribbon has been loaded.
Ribbon remaining length icon: In this case, the icon indicates that the ribbon is full or almost full.
Media Type icon: Indicates the media cartridge installed (if any), its width and remaining length.
Media remaining length icon: In this case, the medium is running "very low".

Tag Editor information on the **LCD screen**.

Actual tag text: This is the only text that will be printed on the medium (tube or label). All the other details on the LCD screen are for information only.

Half/Full-cut icon: E.g. this tag is set to "Half-cut" (6).

Multi-line tag icons: E.g. this tag has 2 lines.

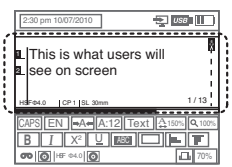


Job Media: The medium used in the current editing job is a Heat-Shrink Flat 4.0mm tube.

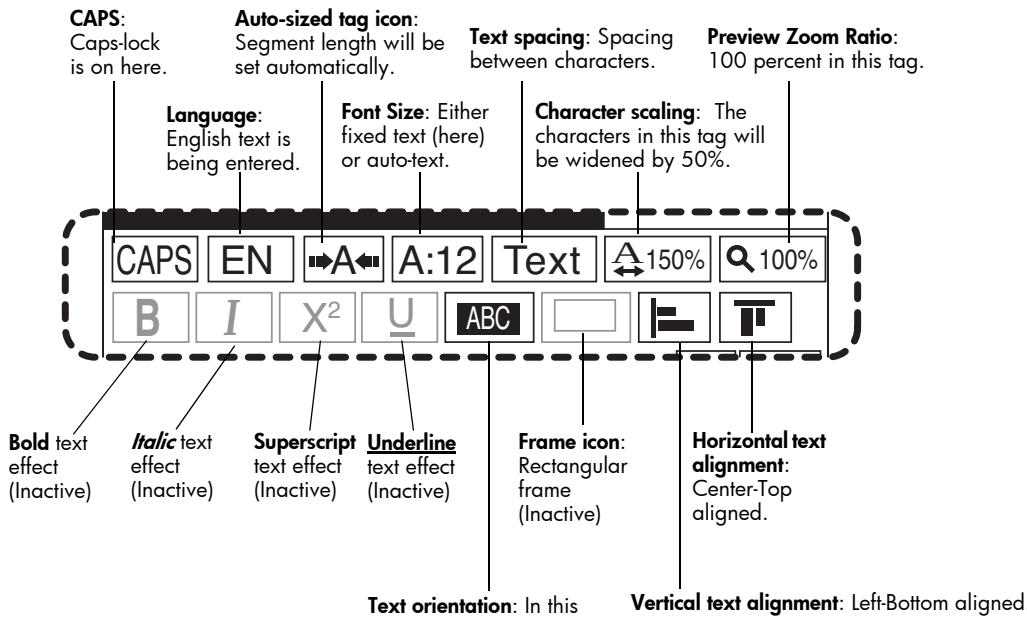
Continuous Print (CP): In this tag, CP is set to 1 (default).

Current Segment Length (SL): In this tag, SL is 30 mm.

Tag number / Number of Tags: This is tag 1 out of 13 tags.



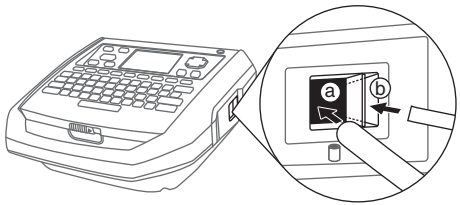
Tag Property information on the **LCD screen**.


CAPS: Caps-lock is on here.
Auto-sized tag icon: Segment length will be set automatically.
Text spacing: Spacing between characters.
Preview Zoom Ratio: 100 percent in this tag.
Language: English text is being entered.
Font Size: Either fixed text (here) or auto-text.
Character scaling: The characters in this tag will be widened by 50%.
CAPS
EN
A:12
Text
150%
100%
B
I
X²
U
ABC
Bold text effect (Inactive)
Italic text effect (Inactive)
Superscript text effect (Inactive)
Underline text effect (Inactive)
Frame icon: Rectangular frame (Inactive)
Horizontal text alignment: Center-Top aligned.
Text orientation: In this tag, set to "Horizontal".
Vertical text alignment: Left-Bottom aligned.

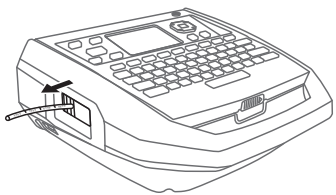
The BMP®91 printer has two media inlets for you to feed a tube into the printer from the outside (i.e. externally):

a. a large rectangular hole for tubes

b. a long, narrow slot for flat heat-shrink tubes

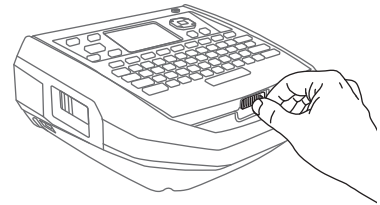


The printer also has a media outlet for the printed tube/label to get out of the device.

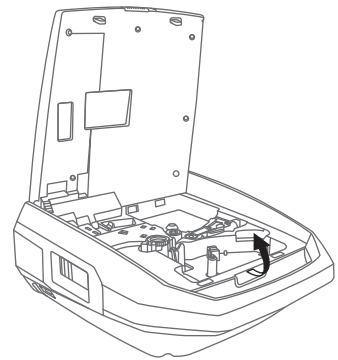


H. Internal components of the printer

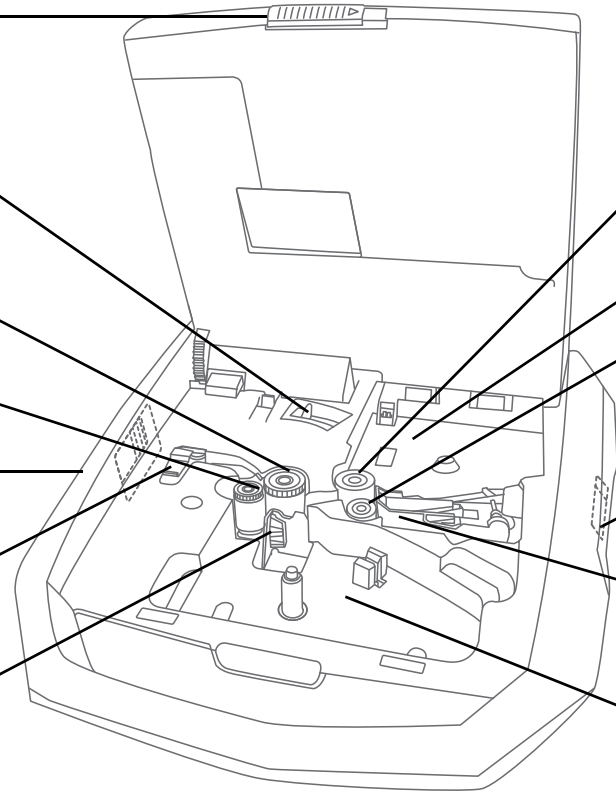
1. Below the printer handle, locate and pull the cover latch.



2. Open the printer cover from the top.



The latches, rollers, cutter, printhead, and cartridge holding areas inside the printer.



Cover latch: Pull this to open the printer cover.

Wrap Roller latch: Pull this to move the Wrap roller away from the Platen roller.

Platen roller: This roller provides the backing against which the printhead can strike.

Wrap roller: This roller holds the tube/label in place against the Platen roller.

Media Outlet: This is where the medium (fed externally or internally) finally emerges after printing.

Cutter: This cuts the medium (tube or label) into preset segments.

Printhead: This presses the ribbon against the medium and prints the text and symbols of predefined tag(s).

Feed roller: This roller helps to move the tube/label forward or backwards, depending on the function triggered in the printer.

Media cartridge holding area.

Pinch roller: This roller holds the tube/label in place against the Feed roller.

Media Inlets: Tubes are fed into the printer from outside (externally) through these two inlets — round tubes through the large hole and flat tubes through the slit.

Media Channel latch: If and when an externally fed tube cannot get through to the rollers, flip open the flap of this latch.

Ribbon cartridge holding area.

2. Setting Up Your Printer

A. Introduction . . . . . page 17
B. Loading a Ribbon Cartridge . . . . . page 17
C. Powering the printer with an AC Supply . . . . . page 18
D. Powering the printer with a Battery . . . . . page 19
E. Using the printer with a Computer . . . . . page 22

A. Introduction

Your BMP®91 printer comes pre-installed with almost all the necessary components.

To start using the printer, you only need to install a ribbon cartridge and then power up the printer with the AC power adapter included in the package.

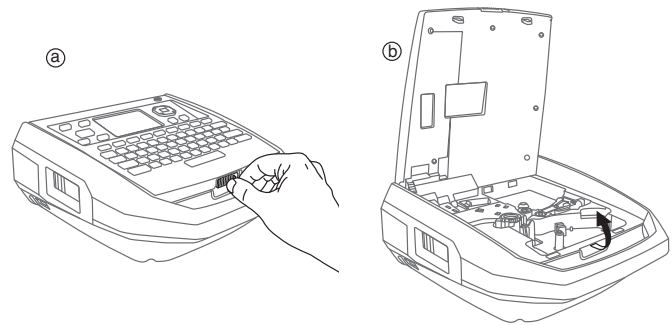
You can also power up the printer with a Lithium Ion 12V battery pack (optional, not included in the package). If and when you choose to do so, before you start, please read the warnings and cautions in the “D. To power the printer with a Battery” section.

The BMP®91 printer is designed to be used primarily as a standalone printer. You can also use the supplied USB cable to connect the printer to a personal computer (PC), for example, to perform system upgrades to the printer, or to print from the PC using the Print Application software.

B. Loading a Ribbon Cartridge

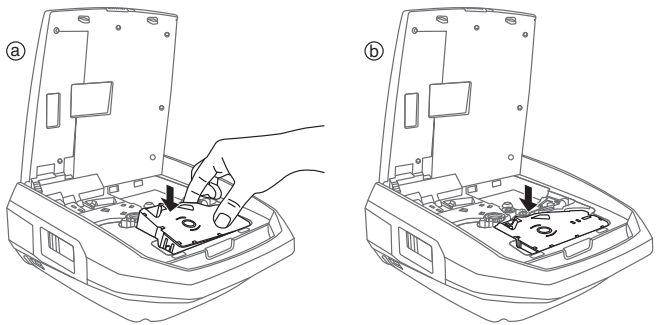
The BMP®91 printer uses only Brady ribbon cartridges. You can load/unload the cartridge with the power on or off.

1. Pull the cover latch and open the printer cover.



Within the printer, near the bottom right hand corner, you should be able to find an empty cartridge holding area.

2. Grasping the finger tabs of cartridge, insert the ribbon cartridge with its label facing up, as shown in the diagram below.



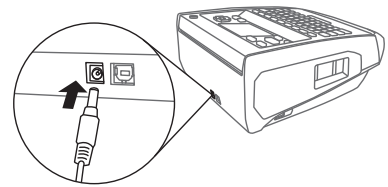
3. Ensure that the printer ribbon is right over the printhead and push the cartridge slightly to snap into place.
4. Close the cover firmly so that you can hear and feel that it latches.

To clear the printhead area of used ribbon, turn the top spool of the ribbon counterclockwise.

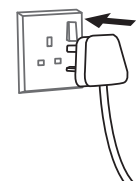
C. Powering the printer with an AC Supply

USE ONLY: a) 100-240V AC power supply, b) the AC adapter supplied in your package.
KEEP: a) the AC plug clean, b) the area around the AC adapter clear of any clutter.

1. Firmly insert the thin round end of the adapter cable into the plug-in port on the back of the printer.



2. Firmly plug the other end of the cord into an electrical outlet. (Your outlet may look different from what is shown here.)



3. Press the ⏻ [Power] key.
The printer starts up. The Brady logo appears and the last tag editing job gets loaded on the LCD screen.

To turn off the printer, press the ⏻ [Power] key and then the OK [OK] key.

D. Powering the printer with a Battery

Your BMP®91 package does not include a battery since battery power is optional.

- Use only Brady Lithium-Ion 12V battery packs.

  CAUTION: Risk of Explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

- Store the battery pack in a cool, dry place.
- Charge the battery pack for 4 hours before using it for the first time.

  You may charge/recharge the battery pack inside the printer using the AC power adapter in your package OR outside the printer using the charger adaptor specifically designed for this purpose.

WARNINGS

- When loading the battery into a battery pack charger or the printer's battery compartment, ensure that the plus (+) and minus (-) terminal marks on the battery pack and on the battery charger/compartment are correctly oriented.

  Reversing the terminals will result in reverse-charging and abnormal chemical reaction may occur, possibly leading to acid leakage, overheating, smoke emission, bursting and/or ignition of the battery pack.

- When recharging the battery, observe the recharging conditions specified by the battery manufacturer.

  A recharging operation under non-conforming conditions (beyond the limits of temperature and larger voltage/current than specified) can cause the battery pack to be overcharged, or charged with extremely high current, abnormal chemical reaction can occur in it, possibly leading to overheating, smoke emission, bursting and/or ignition.

- Do not disassemble, open, or modify the battery. If it is damaged, replace the battery.

  Incorrect reassembly may result in the risk of electric shock, fire or exposure to battery chemicals.

- Do not use a battery pack that has been damaged in any way (e.g., pierced with a nail, hit with a hammer, run over, stepped on, received a sharp blow, dropped).
- Do not drop the battery. Do not crush the battery by putting objects on top of it.

  Doing any of these may damage the battery.

- Do not transport or store the battery pack together with metal objects such as necklaces, hair pins, etc.

  A battery will short circuit if a metal object makes a connection between the positive and negative contacts on the battery. A short circuited battery may cause fire and personal injury.

- Do not expose cells or batteries to heat, fire, water or rain. Avoid storage in direct sunlight. Do not allow it to get wet.

  Batteries exposed to heat or fire may explode, causing personal injury or damage. Toxic fumes and materials are created when batteries are burned.

  Water may cause the protective features in the battery pack to be damaged. The pack can exhibit extremely high current and/or voltage; abnormal chemical reactions may occur in the pack, possibly leading to overheating, smoke emission, bursting and/or ignition.
- Do not use the battery pack for a purpose other than those specified.

  Misuse of battery pack may damage the battery pack, shorten battery pack life, result in risk of fire, electric shock or personal injury.
- Dispose of Brady Lithium Ion batteries according to federal, state and local regulations. Contact a recycling agency in your area for recycle locations.

  Improper battery disposal may harm you and the environment.

CAUTIONS

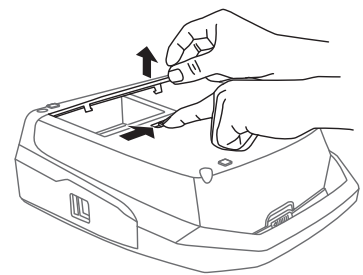
- Do not store battery where temperatures may exceed 49 °C (120 °F), such as in direct sunlight, a vehicle or a metal building during summer.

The charger will charge the battery when the battery's internal temperature is between 0°C (32 °F) and 45 °C (113 °F). When the battery pack temperature range is outside that range, charging will not occur.

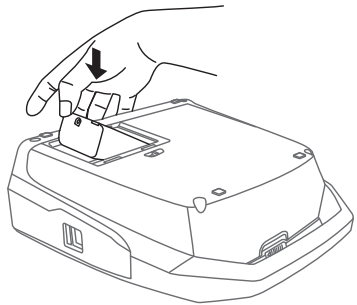
- Do not expose the battery pack or printer to water or rain, or allow them to get wet. This may damage the battery pack and/or the printer.
- Do not use oil or solvents to clean or lubricate the battery. The plastic casing will become brittle and crack, causing a risk of injury.
- Do not allow any metal or other conductive materials to touch the battery terminals.

To load the battery in the printer:

1. Holding the printer securely by the handle, turn the printer over.
2. Open the bottom casing as shown here.



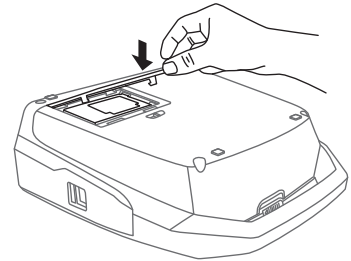
3. Holding the battery (with its label facing upwards and its metallic terminals away from you), insert it into the printer's battery compartment as shown in the diagram here.



4. Ensure that the battery pack fits snugly in the battery compartment.

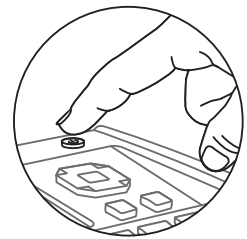
If you cannot easily connect the battery pack terminals to the printer's battery compartment terminals, double-check that the plus (+) and minus (-) terminal marks on the two are correctly oriented.

5. Close the casing.



6. Press the ⏻ [Power] key.

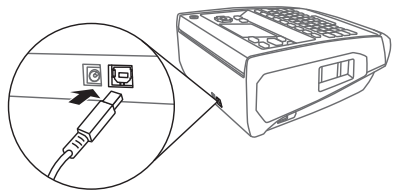
The printer starts up. The Brady logo appears and the last tag editing job gets loaded on the LCD screen.



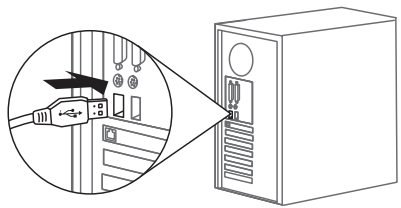
To turn off the printer, press the ⏻ [Power] key and then the OK [OK] key.

E. Using the printer with a Computer

1. Insert the smaller, squarish end of the USB cable into the printer's socket as shown here.



2. Plug the other end (with a rectangular connector) of the USB cable into a USB port on a personal computer (PC).



3. Enter Menu [Menu] > System > "PC Connection".
   For more detailed instructions, see the "PC Connection" section in "5. Advanced Functions".

To use the printer with a USB flash drive, see the "Flash Drive Connection" section in "5. Advanced Functions".

3. Printing on Selected Media

A. Introduction . . . . . page 23
B. Printing with a Tube Roll . . . . . page 23
C. Printing with a Heat-Shrink Roll . . . . . page 26
D. Printing with a Heat-shrink Cartridge . . . . . page 28
E. Printing with a Label Cartridge . . . . . page 30
F. Changing the Media Type and Its Application . . . . . page 32
G. Previewing before printing . . . . . page 34
H. Canceling Printing . . . . . page 35

A. Introduction

The BMP®91 printer supports printing on four main types of media: tube rolls, heat-shrink tube rolls, heat-shrink tube cartridges and label cartridges. The tubes in rolls are fed into the printer from the outside (externally) while the tubes/labels in cartridges are loaded from within the printer (internally).

When powered up for the first time, a brand new BMP®91 printer will prompt you to select: 1) Media Type, and 2) Application. After this, the default settings of new editing jobs will be based on these settings. On subsequent power-ons, however, the settings of new editing jobs will be based on the last settings before power-off.

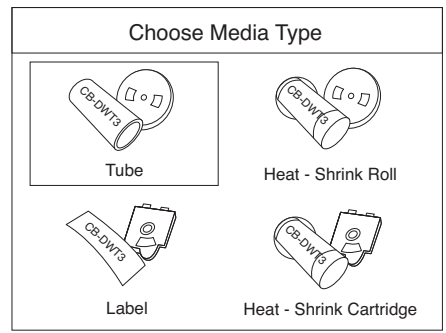
For a new printer, the default media type is "Tube".

B. Printing with a Tube Roll

1. Select "Tube" on the printer.

a. On the printer, press the Media [Media] quick key.

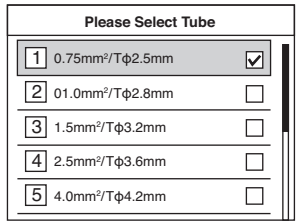
Four media types appear on the LCD screen.



b. Ensure that "Tube" is selected (see previous screenshot) and press OK [OK].

A list of different tube diameters appears on the screen.

Diameter refers to the inner diameter of the tube



c. Using the printer's vertical navigation keys ▲ and ▼, select your tube width on the screen and press [OK] [OK].

d. In the Application screen, select an application ("General" or "Vertical") and press [OK] [OK]. For more options and detailed instructions, see the "F. Changing the Medium and Its Application" section.

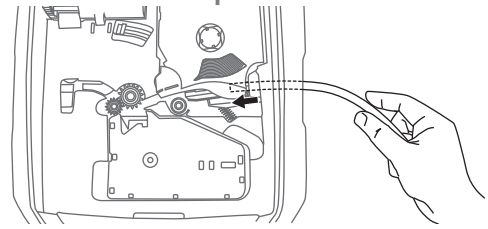
e. Select "Auto-sized" or "Fixed-size", and press [OK] [OK]. The screen returns to the main tag editor.

2. Enter and print the text/symbols.

a. Enter and edit the text/symbols. (For detailed instructions, refer to "4. Entering & Editing Text/Symbols.")

b. To see how the entered text/symbols look like when printed, press [Preview] [Preview].

3. Insert the tube into the printer.

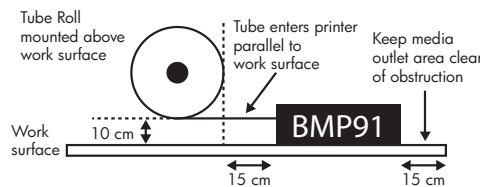


The printer will not print properly on a tube that is bumpy, dirty, or of uneven thickness.

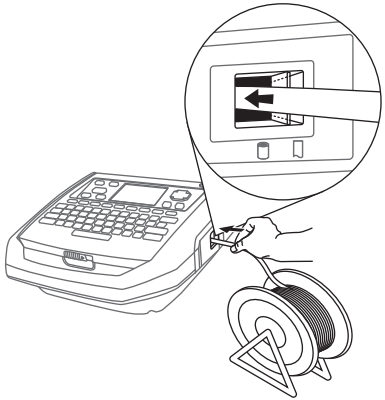
When using a tube reel, minimise the tension in the tube so that printing performance is optimized. High tension will cause tube stretch and even slippage, causing poor print quality.

During printing, keep the media outlet area clear of obstruction and accumulated prints. A blocked media outlet will cause improper cutting.

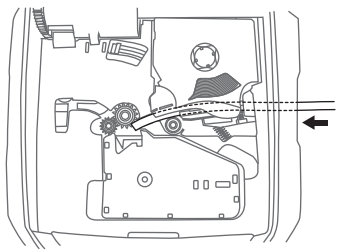
An example of how tension can be minimised:



a. From the printer's right side, insert the tube into the larger media inlet (see the next figure). Keep pushing the tube in until you cannot push it any further.



The printer should autoload the tube, moving it up to somewhere near the platen roller.



If auto-loading fails, an error message will appear on screen.

To load the tube manually:

i) Open the printer and remove any installed media cartridge.

ii) Push the tube manually until it reaches the platen roller.

iii) Close the cover and let the printer load the tube.

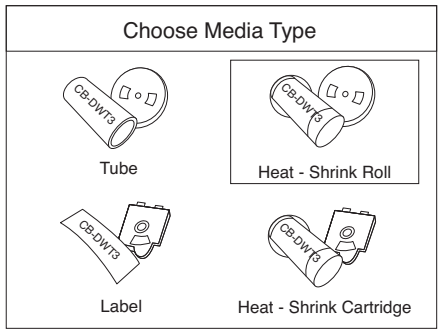
For detailed instructions, refer to the "If the externally fed tube is not autoloaded…" section in "7. Troubleshooting".

b. Press PRINT [PRINT].

C. Printing with a Heat-Shrink Roll

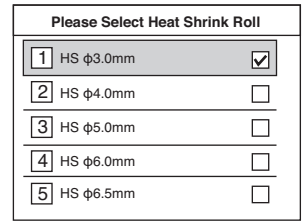
1. Select "Heat-shrink Roll" on the printer.

a. On the printer, press the [Media] quick key and then press [OK] [OK].
Four media types appear on the LCD screen.



b. Using the printer's navigation keys [▲], [▼], [◀], [▶], select "Heat Shrink Roll" and press [OK] [OK].

A list of heat-shrink tube diameters appears on the screen.



c. Using the printer's vertical navigation keys [▲] and [▼], select your tube width on the screen and press [OK] [OK].

d. In the Application screen, select an application ("General" or "Vertical") and press [OK] [OK]. For more options and detailed instructions, see the "F. Changing the Medium and Its Application" section.

e. Select "Auto-sized" or "Fixed-size", and press [OK] [OK]. The screen returns to the main tag editor.

2. Enter and print the text/symbols.

a. Enter and edit the text/symbols. (For detailed instructions, refer to "4. Entering & Editing Text/Symbols.")

b. To see how the entered text/symbols look like when printed, press [Preview] [Preview].

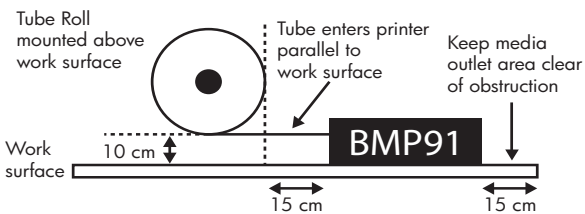
3. Insert the heat-shrink tube into the printer.

The printer will not print properly on a heat-shrink tube that is bumpy, dirty, or of uneven thickness.

When using a heat-shrink tube roll, minimise the tension in the tube so that printing performance is optimized. High tension will cause tube stretch and even slippage, causing poor print quality.

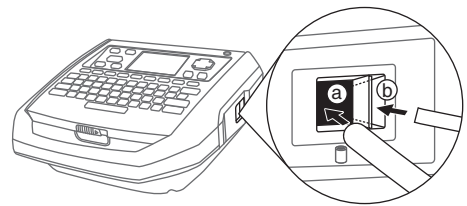
During printing, keep the media outlet area clear of obstruction and accumulated prints. A blocked media outlet will cause the improper cutting.

An example of how tension can be minimised:



a. From the right side, insert the Heat Shrink Tube into the narrow media inlet (b), (see below). Keep pushing the tube in until you cannot push it any further.

The BMP®91 printer is optimised for Brady heat-shrink tubes. If third-party heat shrink tubes are used, the printer might not print properly.



The printer should autoload the tube, moving it up to somewhere near the platen roller.

If the tube was not autoloaded and ready for printing, you can load it manually. *For detailed instructions, refer to the "If the externally fed tube is not autoloaded…" section in "7. Troubleshooting".*

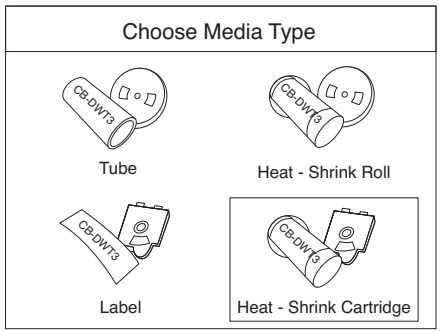
b. Press PRINT [PRINT].

D. Printing with a Heat-shrink Cartridge

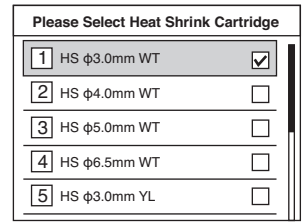
1. Select "Heat-shrink Cartridge" on the printer.

a. On the printer, press the [Media] quick key and then press [OK] [OK].

Four media types appear on the LCD screen.



b. Using the printer's navigation keys ▲, ▼, ◀, ▶, select "Heat-shrink Cartridge" and press [OK] [OK].
A list of heat-shrink tube diameters appears on the screen.



c. Using the printer's vertical navigation keys ▲ and ▼, select your tube width on the screen and press [OK] [OK].

d. In the Application screen, select an application ("General" or "Vertical") and press [OK] [OK]. For detailed instructions and more options, see the "F. To Change the Medium and Its Application" section in this chapter.

e. Select "Auto-sized" or "Fixed-size", and press [OK] [OK].
The screen returns to the main tag editor.

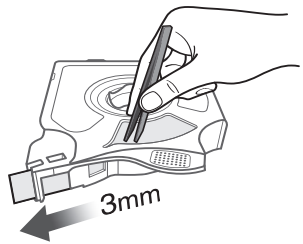
2. Enter and print the text/symbols.

a. Enter and edit the text/symbols. (For detailed instructions, refer to "4. Entering & Editing Text/Symbols.")

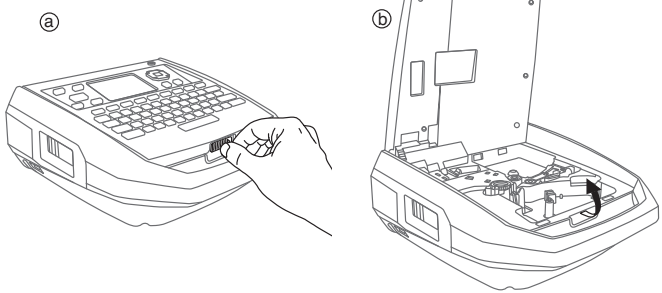
b. To see how the entered text/symbols look like when printed, press [Preview] [Preview].

3. Insert the cartridge into the printer.

a. Ensure that a small portion (about 3 mm) of the tube is protruding out of the cartridge.

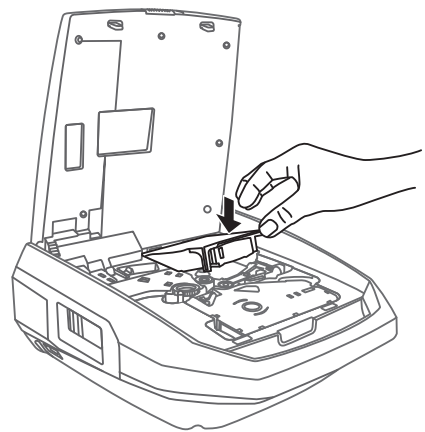


b. Pull the cover latch and open the printer cover.



c. Holding the cartridge with its label facing up, insert it into the cartridge holding area (see the next illustration) and press it down lightly.

The cartridge should fit in snugly. If it doesn't, pull the media channel latch downwards to enable the cartridge to move into place. (The latch is between the media cartridge and the ribbon cartridge.)



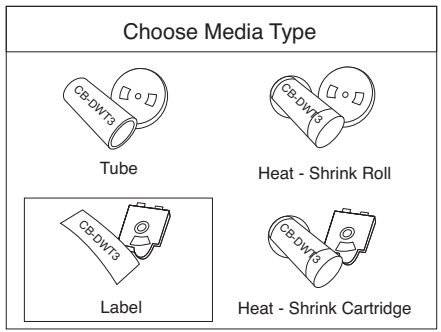
d. Close the printer cover, ensuring that it latches firmly.

e. Press [PRINT] [PRINT].

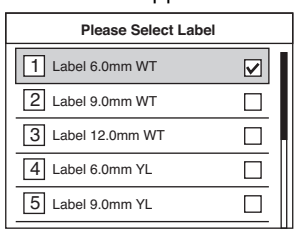
E. Printing with a Label Cartridge

1. Select "Label" on the printer.

a. Press the [Media] [Media] quick key and then press [OK] [OK]. Four media types appear on the LCD screen.



b. Using the printer's navigation keys [▲], [▼], [◀], [▶], select "Label" and then press [OK] [OK].
A list of label diameters appears on the screen.



c. Using the printer's vertical navigation keys [▲] and [▼], select your label width on the screen and then press [OK] [OK].

d. In the Application screen, select an application ("General", "Vertical", "Patch Panel" or "Terminal Block") and press [OK] [OK]. For more options and detailed instructions, see the "F. Changing the Medium and Its Application" section.

e. Select "Auto-sized" or "Fixed-size", and press [OK] [OK]. The screen returns to the main tag editor.

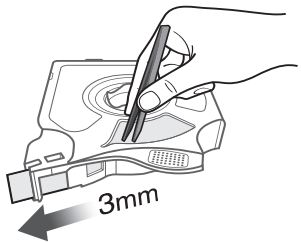
2. Enter and print the text/symbols.

a. Enter and edit the text/symbols. (For detailed instructions, refer to "4. Entering & Editing Text/Symbols.")

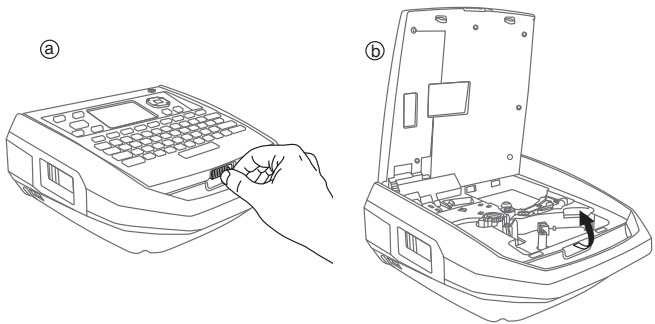
b. To see how the entered text/symbols look like when printed, press [Preview] [Preview].

3. Insert the cartridge into the printer properly.

a. Ensure that a small portion (about 3 mm) of the label is protruding out of the cartridge.

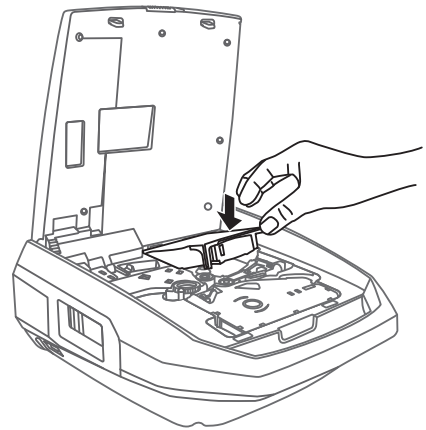


b. Pull the cover latch and open the printer cover.



c. Holding the cartridge with its label facing up, insert it into the cartridge holding area (see the next illustration) and press it down lightly.

The cartridge should fit in snugly. If it doesn't, pull the media channel latch downwards to enable the cartridge to move into place. (The latch is between the media cartridge and the ribbon cartridge.)



d. Close the printer cover, ensuring that it latches firmly.

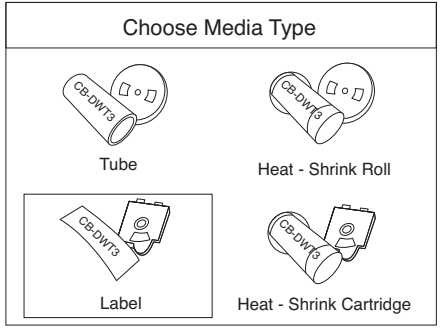
e. Press PRINT [PRINT].

F. Changing the Media Type and Its Application

To change the Application only, press Fn [Fn] + Media [Media].

1. Press the Media [Media] quick key.

   Four media types appear on the LCD screen.

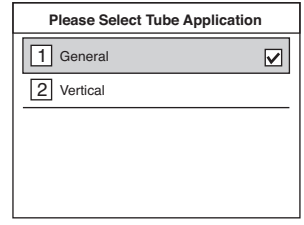


2. Using the printer's navigation keys ▲, ▼, ◀, ▶, select a new media type and press OK [OK].

   A list of tube/label widths appears on the LCD screen.

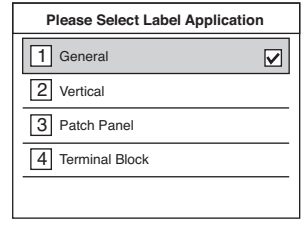
3. Select your tube/label width and press OK [OK].

If "Tube" (or "Heat-shrink Roll" or "Heat-shrink Cartridge") was entered, only two application types — "General", "Vertical" — appear on the medium's Application screen.



When a medium has a "General" application, the orientation of the text printed on the medium is horizontal.

If "Label" was entered, four application types — "General" (horizontal), "Vertical", "Patch Panel" (horizontal), "Terminal Block" — appear on the medium's Application screen.

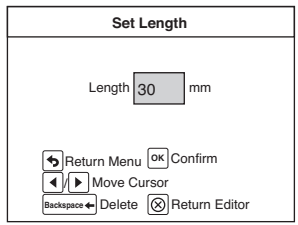


4. Select an application type and press [OK] [OK].

If "General" or "Vertical" is entered:

a. **To let the printer set the segment length**, select "Auto-sized" and press [OK] [OK].
The Tag Editor appears.

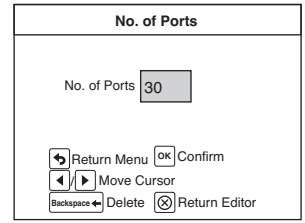
b. **To set the segment length yourself**, select "Fixed-size" and press [OK] [OK].
Confirm or change the number in the "Length" text box and press [OK] [OK].
The Tag Editor appears.



If "Patch Panel" is entered:

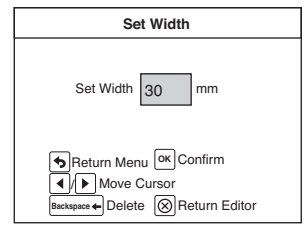
a. Confirm or change the number in the "No. of Ports" text box and press [OK] [OK].

The Set Width screen appears.



b. Confirm or change the number in the "Set Width" text box and press [OK] [OK].

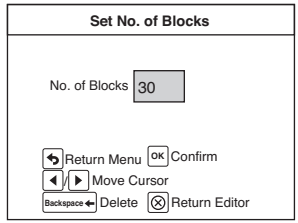
The tags will be created, then the Tag Editor appears.



If "Terminal Block" is entered:

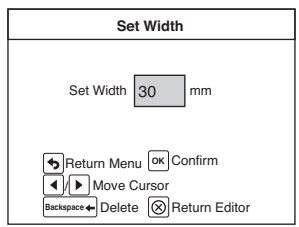
a. Confirm or change the number in the the "No. of Blocks" text box and press [OK] [OK].

   The Set Width screen appears.



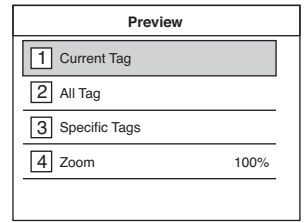
b. Confirm or change the number in the "Set Width" text box and press [OK] [OK].

   The tags will be created, then the Tag Editor appears.



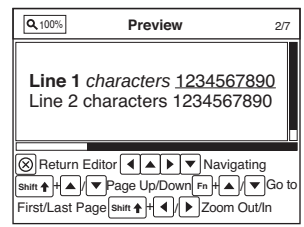
G. Previewing before printing

1. Press [Preview] [Preview].
   Four preview options ("Current Tag", "All Tags", "Specific Tags", and "Zoom") appear on the LCD screen.

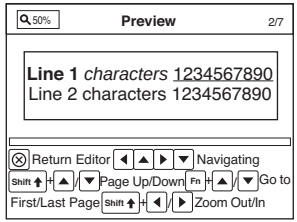


2. Select an option and press [OK] [OK].

   If "Current Tag" is entered, the Preview screen will appear.



If "All Tags" is entered, the Preview screen will also appear.

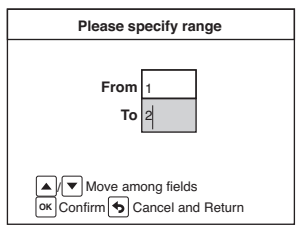


a. To view the tags one by one, press [Shift] + [Up] or [Shift] + [Down].

b. To view the first/last tag, press [Fn] + [Up] or [Fn] + [Down] .

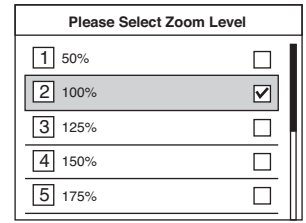
If "Specific Tags" is entered, the "Please specify range" screen will appear.

a. Type the relevant numbers in the From and To text boxes and press [OK]. The Tag Editor appears.



If "Zoom" is entered, the "Please select Zoom Level" screen will appear.

a. Select the desired zoom level and press [OK]. The Tag Editor appears.



H. Canceling Printing

1. Press [Cancel Print]. A warning message appears, asking for confirmation that you really want to cancel the printing.
2. Choose OK on the warning message to resume printing or Cancel to stop printing.

4. Entering and Editing Text/Symbols

A. Introduction . . . . . page 36
B. What is a Tag? . . . . . page 36
C. General Navigation Tips . . . . . page 38
D. Browsing, Creating or Deleting Tags . . . . . page 38
E. Changing the Menu/Input Language . . . . . page 40
F. Entering Text in a Tag . . . . . page 40
G. Formatting the Font in a Tag . . . . . page 41
H. Adding Serialization to a Tag . . . . . page 42
I. Adding a Barcode to a Tag . . . . . page 43
J. Adding Other Symbols to a Tag . . . . . page 44
K. Deleting Text/Symbols . . . . . page 44
L. Changing the Properties of Tags . . . . . page 45

A. Introduction

When powered up for the first time, your brand new BMP®91 printer will prompt you to select a) Media Type and b) Application. After this, each new editing job will be based on these default settings.

Upon subsequent power-on however, the printer will autoload the last editing job (with its media settings) that was in the Tag Editor before the last power-off. This will happen even when the current medium may be different from the last medium and even if the last job was a blank one (with a blank tag), the printer will still load it.

Therefore, the instructions in this chapter are written with the assumption that the Media Type and its Application have already been chosen/confirmed. If you want to change the media/application and need detailed instructions, please see the "F. To Change the Media Type and Its Application" section in "Chapter 3. Printing on Selected Medium".

Shorthand used in this chapter: E.g. This instruction, "Enter [Menu] [Menu] > Quick Keys > Tag > Properties" means "Press [Menu] [Menu]; then select Quick Keys and press [OK] [OK]; next select Tag and press [OK] [OK]; and finally select Properties and press [OK] [OK]".

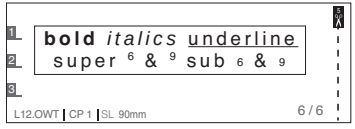
B. What is a Tag?

Before you can print anything on a tube/label with the BMP®91 printer, you must use the Tag Editor on the LCD screen to enter the characters (and serial numbers, barcodes or other symbols, if any) to something known as a "tag".

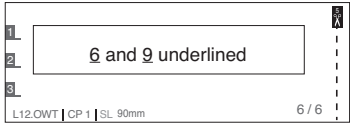
Just what is a "tag"? On this printer, a "tag" is basically a printable space with default and changeable properties. When printed, each tag usually corresponds to one segment on the tube/label. If multiple copies of the same "tag" are printed, a "tag" will then correspond to multiple segments on the tube/label.

You can create as many tags as you want. You can also import and insert your own graphics into a tag. You can format the text or change the properties of a tag too.

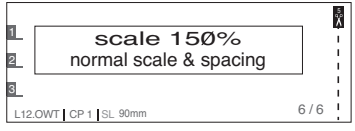
Example 1: Make some part of the text bold, italics or underlined, superscript, or subscript.



Example 2: Underline the digits "6" and "9" by default for easier recognition.

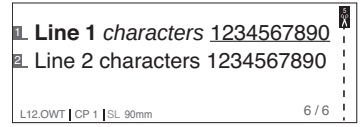


Example 3: Increase the scale of the Line 1 text to 150%.

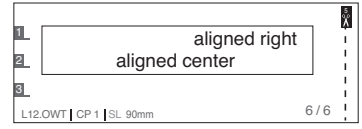


Example 4: Expand the spacing of Line 1 text to "Exp. 2".

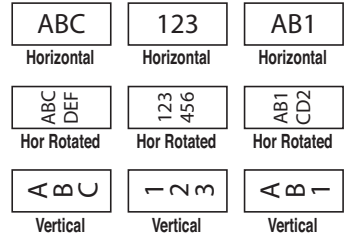
Example 5: Turn a tag (usually single-line) into a multi-line one.



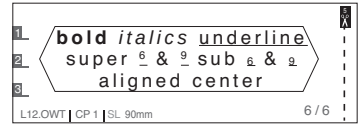
Example 6: Align the text in a tag left, right or center.



Example 7: Orient the text vertically, horizontally or "horizontally rotated".



Example 8: Add a frame to the tag.



C. General Navigation Tips

To move the cursor on the LCD screen horizontally (e.g. across the characters in a tag or the items in a context menu):

- Press [◄] [Left] or [►] [Right] on the printer.

To move the cursor on the LCD screen vertically (e.g. up or down the lines in a tag or the items in a list menu):

- Press [▲] [Up] or [▼] [Down] on the printer.

To confirm your selection of an item on the screen:

- Press [OK] [OK] or [Enter ↵] [Enter].
  A tick (✓) appears on the right to that item to indicate that this item has been selected.

To select a set of characters in a tag for editing:

1. Move the cursor to the first character.
2. Press [⇧ Shift] [Shift] + [◄] [Left] (or [⇧ Shift] [Shift] + [►] [Right]) to select the characters to the left (or right) of the cursor.

To return to a parent menu (i.e. move up one level):

- Press [↩] [Menu Return] or [Esc] [Esc].

To return directly to the Tag Editor:

- Press [⊗] [Close].

To view how the tag (when printed) will look like:

- Press [Preview] [Preview].
  For more detailed instructions, please refer to the “H. To Preview the Tags” section in “3. Printing with Specific Media”.

D. Browsing, Creating or Deleting Tags

To open the Tag menu:

- Enter [Menu] [Menu] > Quick Keys > “Tag”.

Shortcut: Press the [Fn] [Fn] + [File] [File] quick keys.

To browse the tags one at a time:

- Press [⇧ Shift] [Shift] + [▲] [Up] (or [⇧ Shift] [Shift] + [▼] [Down]) to move backward (or forward).

To jump to the first (or the last) tag:

- Press [Fn] [Fn] + [▲] [Up] (or [Fn] [Fn] + [▼] [Down]).

To go to a specific tag (if you know the tag number):

1. Enter [Fn] [Fn] + [File] [File] > Tag Edit > "Go To".
2. In the "Tag Number" box, enter the number of the tag that you want to edit and press [OK] [OK].
   The tag appears.

To create a tag:

- At the end of the last (or only) tag, press [Enter] [Enter].
  A new empty tag appears.

To copy and paste a tag:

1 In the Tag Editor, navigate to the tag to be copied.
2 Enter [Fn] [Fn] + [File] [File] > Tag Edit > Edit > "Copy".
3 In the Tag Editor, navigate to the tag before (or after) which to paste the copied tag.
4 Enter [Fn] [Fn] + [File] [File] > Tag Edit > Edit > "Paste".
5 Select "Before Current Tag" (or "After Current Tag") and press [OK] [OK].
   The copied tag appears.

To insert a tag:

1 In the Tag Editor, navigate to the tag after which to insert a new tag.
2. Enter [Fn] [Fn] + [File] [File] > Tag Edit > Edit > "Insert".
   An empty tag is inserted after the current tag.

To delete a tag:

1 In the Tag Editor, navigate to the tag to be deleted.
2 Enter [Fn] [Fn] + [File] [File] > Tag Edit > Edit > "Delete".
3 Select "Current Tag" and press [OK] [OK].
   A warning message appears, asking for your confirmation to delete the tag.
4 Press [OK] [OK].
   The tag disappears.

To delete selected tags:

1 Enter [Fn] [Fn] + [File] [File] > Tag Edit > Edit > Delete > "Range".
2. Type in the "from" and "to" numbers, and press [OK] [OK].
   A warning message appears, asking for your confirmation to delete the tags.
3. Press [OK] [OK].
   The selected tags disappear.

To delete all tags:

1. Enter [Fn] [Fn] + [File] [File] > Tag Edit > Edit > “Delete”.
2. Select “All Tags” and press [OK] [OK].
   A warning message appears, asking for your confirmation to delete the tags.
3. Press [OK] [OK].
   All the tags disappear.

E. Changing the Menu/Input Language

To change the menu language:

1. Enter [Menu] [Menu] > Settings > Language > “Menu”.
2. Select the language you want (English or Chinese) and press [OK] [OK].

To change the input language:

1. Enter [Menu] [Menu] > Settings > Language > “Input”.
2. Select the language you want (English or Chinese) and press [OK] [OK].

Alternatively:

1. Press the [Language] [Language] quick key.
   The Language icon on the LCD screen changes.
2. Toggle to select your preferred language (“EN”, “ 中文 ”, “ 中 half-moon” or “ 中 full-moon”).
   If necessary, you can enter both English and Chinese characters in the text.

The BMP®91 printer supports two input methods: English and Chinese similar to the standard PC keyboard (US) and the Microsoft Pinyin. When the printer is in the 中◕ “ 中 half-moon” or 中○ “ 中 full-moon” mode, you can enter letters, numbers and symbols using the Chinese font with “half-width” or “full-width” character spacing.

F. Entering Text in a Tag

1. Press the respective keys on the QWERTY keyboard.

   The text appears on the LCD screen. By default, the letters appear in lowercase.

   To type uppercase letters, press [Caps]. You can also press [Shift] with the respective letter (e.g. [Shift] + [A] to type “A”).

   To add serialization, see section “H. To Add Serialization to a Tag”.

To add a barcode, see section "I. To Add a Barcode to a Tag".

To add other symbols, see section "J. To Add Other Symbols to a Tag".

To delete text/symbols, see section "K. To Delect Text/ Symbols".

To add user graphics: see section "G. User Graphics" in "5. Advanced Functions".

To insert a date and/or time icon: see section "J. Other Useful Functions" in "5. Advanced Functions".

G. Formatting the Font in a Tag

To open the Font menu:

- Enter [Menu] [Menu] > "Font".

Changes in Font Size, Scale and Spacing are applied to a line in the tag. Changes in Effects and Style, on the other hand, are applied to selected characters only in the tag.

To change the font size:

1. Press [Font Size] [Font Size].
2. In the Size list box, select the desired size (e.g. 4pts, 5pts.... or 28pts) and press [OK] [OK].
3. Press [Close] [Close] to return to the Tag Editor.

To change the font style:

1. Enter [Menu] [Menu] > Font > "Style".
2. In the Style list, select the desired style ("Bold", "Italics", or "Underline") and press [OK] [OK].
3. Press [Close] [Close] to return to the Tag Editor.

To add a font effect:

1. Using [Shift] [Shift] + [Left] [Left] or [Shift] [Shift] + [Right] [Right], select the set of characters to apply the text effects.
2. Enter [Menu] [Menu] > Font > "Effects".
3. Select the desired effect ("None", "Superscript", or "Subscript") and press [OK] [OK].
4. Press [Close] [Close] to return to the Tag Editor.

To change the character scale:

1. Move the cursor the line where you want to apply the scaling.

2. Enter [Menu] [Menu] > Font > "Scale".
3. In the Scale list, select the desired zoom factor (e.g. 50%, 75%, 125% or 150%) and press [OK] [OK].
4. Press [Close] [Close] to return to the Tag Editor.

To set the text/character spacing:

1. Move the cursor the line where you want to apply the spacing.
2. Enter [Menu] [Menu] > Font > "Spacing".
3. In the Spacing list, select an option ("Normal", "Expanded 1", "Expanded 2", "Expanded 3", "Expanded 4" or "Expanded 5") and press [OK] [OK].
4. Press [Close] [Close] to return to the Tag Editor.

To add (or remove) an underline for the digits "6" and "9":

1. Enter [Menu] [Menu] > Settings > "6 and 9".
2. Select "On" (or "Off") and and press [OK] [OK].
3. Press [Close] [Close] to return to the Tag Editor.

H. Adding Serialization to a Tag

To open the Serialization menu:

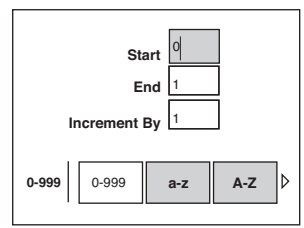
1. Enter [Menu] [Menu] > "Quick Keys" > "Serialization".

Shortcut: Press the [Serial] [Serial] quick key.

To add serialization to a Tag:

1. Press the [Serial] [Serial] quick key.
   The Serialization menu appears.
2. In the Serialization menu, select "0–999", "a–z" or "A–Z".

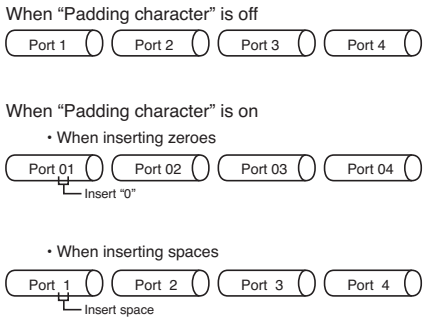
   If the "0–999" option is entered, set the "Start" number (default is 0), the "End" number (default is 1) and the "Increment By" number (default is 1) and then press [OK] [OK].



   If the "a–z" option is entered, set the "Start" alphabet (default is a), the "End" alphabet (default is b) and the "Increment By" number (default is 1) and then press [OK] [OK].

If the "A–Z" option is entered, set the "Start" alphabet (default is A), the "End" alphabet (default is B) and the "Increment By" number (default is 1) and then press [OK] [OK].

If the Paddings option is entered, select "Space", "0" or "None" to set "Padding character" and then press [OK] [OK].



The Serialization Continuous Print menu appears.

The only valid characters that can be used in padding are zero ("0") or a blank space (" "). before the line "The Serialization Continuous Print menu appears."

3. In the Serialization Continuous Print menu, set the number of copies (1-999) to be printed and press [OK] [OK].

The increment step must always be >= 1.

I. Adding a Barcode to a Tag

Barcodes can be added to 9 mm and 12 mm labels only (and not on any tubes) on the printer. Depending on the type selected, the valid data range may vary.
The segment has to be auto-sized or >25 mm if fixed size.
Only upper-case characters and digits 0-9 are allowed for code 39.

1. Enter [Menu] [Menu] > "Barcode".
   The Barcode menu appears, with "Set Barcode" highlighted.
2. Press [OK] [OK]. The options ("Type" and "HR Text") in the Set Barcode menu appears, with "Type" highlighted.
3. Press [OK] [OK]. The Type submenu options appear, with "Code39" highlighted.
4. In the Type list, select your preferred type ("Code 128" or "Code 39") and press [OK] [OK].
5. In the HR Text list, select "On" (or "Off") and press [OK] [OK].
6. Press [Menu Return] [Menu Return] twice. The Set Barcode options disappear.
7. Select "Barcode Data" and press [OK] [OK].
8. Enter the desired text and press [OK] [OK] to confirm.
9. Press [Close] [Close] to return to the Tag Editor.

J. Adding Other Symbols to a Tag

To add a commonly used symbol:

- Press [Fn] [Fn] and the respective key on the QWERTY keyboard. For example:

To get	Press	To get	Press
~	[Fn] + [Q]	[	[Fn] + [F]
€	[Fn] + [W]	]	[Fn] + [G]
£	[Fn] + [E]	"	[Fn] + [H]
¥	[Fn] + [R]	'	[Fn] + [J]
{	[Fn] + [T]	;	[Fn] + [K]
}	[Fn] + [Y]	:	[Fn] + [L]
_	[Fn] + [U]	®	[Fn] + [Z]
–	[Fn] + [I]	©	[Fn] + [X]
+	[Fn] + [O]	°	[Fn] + [C]
=	[Fn] + [P]	‰	[Fn] + [V]
`	[Fn] + [A]	Ω	[Fn] + [B]
±	[Fn] + [S]	<	[Fn] + [N]
ϕ	[Fn] + [D]	>	[Fn] + [M]

To add a special symbol:

1. Press the [Symbol] [Symbol] quick key.
   The Symbol menu appears.
2. In the Symbol menu, press the horizontal navigation keys to select a symbol category (e.g. "Latin 1", "Latin 2", "Greek", "Cyrillic", "General", "Number", "Blocks", "Japanese", "Currency", "BPMF", "Units", or "Special") and press [OK] [OK].
   The respective symbol list appears.
3. In the Symbol list, select your preferred symbol and press [OK] [OK].

K. Deleting Text/Symbols

To delete a character (or a serial number, a barcode or other symbols) on the left of the cursor in a line and to move the cursor leftwards:

- Press [Backspace] [Backspace].

To quickly delete all the characters and then set the cursor at the beginning of the line:

- Press [Fn] [Fn] + [Backspace] [Backspace].

To delete all the characters on the left of cursor:

- Press [Shift] [Shift] + [Backspace] [Backspace].

WHEN there are no more characters to delete in a tag AND the cursor is on the top left position in the first line, pressing [Backspace] [Backspace] will quickly delete this tag (if it is not the only tag left)!

L. Changing the Properties of Tags

To open the Properties menu:

1. Enter [Menu] [Menu] > Quick Keys > Tag > "Properties".

Shortcut: Enter [Fn] [Fn] + [File] [File] > "Properties".

All changes in the Properties submenu are applied to the current tag only. To apply properties to multiple tags, use the "Apply Current Properties" option in the Tag menu.

To change a single-line tag to a multiline tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > Set Multiline > "Multiline".
2. In the Multiline list, select an option ("2 lines" or "3 lines") and press [OK] [OK].
3. Press [Close] [Close] to return to the Tag Editor.

Shortcut: Press [Fn] [Fn] + [1] (or [2] or [3]) to quickly create a one- (or two- or three-) line tag.

To change the content alignment of a tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > "Alignment".
   The Alignment menu appears, with the Horiz. submenu highlighted in blue by default.

Shortcut: Press the [Fn] [Fn] + [A/a] [A/a] quick keys.

2. Press [OK] [OK].
   The options in the Horiz. submenu appear, with Center highlighted by default.
3. Select an option ("Left", "Center" or "Right") and press [OK] [OK].
   The Horiz. submenu is still highlighted in blue by default.
4. Select "Vertical" and press [OK] [OK].
   The options in the Vertical submenu appear, with "Middle" highlighted by default.
5. Select an option ("Top", "Middle" or "Bottom") and press [OK] [OK].
6. Press [Close] [Close] to return to the Tag Editor.

To change the text orientation in a tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > "Rotation".

Shortcut: Press the [A/a] [A/a] quick key.

2. Select an option (“Vertical”, “Horizontal” or “Hor Rotated”) and press [OK] [OK].
3. Press [Close] to return to the Tag Editor.

To add a frame in a tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > “Frame”.
   A list of frames appears.
2. Select a frame and press [OK] [OK].
3. Press [Close] to return to the Tag Editor.

Shortcut: Press the [Fn] [Fn] + [Symbol] [Symbol] quick keys.

To remove a frame in a tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > Frame > “None”.
2. Press [Close] to return to the Tag Editor.

Shortcut: Press the [Fn] [Fn] + [Symbol] [Symbol] quick keys and select “None”.

To change the number of printed copies of a tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > “Continuous Print”.
2. Enter the number of copies preferred and press [OK] [OK].
3. Press [Close] to return to the Tag Editor.

Shortcut: Press the [Fn] [Fn] + [Language] [Language] quick keys and select “Continuous Print”.

To change the segment length for a tag:

1. Enter [Fn] [Fn] + [File] [File] > Properties > “Segment Length”.
2. Select an option (“Auto-sized” or “Fixed-size”) and press [OK] [OK].
   If you have chosen “Auto-sized”, the screen will return to the parent menu (i.e. the Properties submenu).
3. If you have chosen “Fixed-size”, enter your preferred segment length and press [OK] [OK].
4. Press [Close] to return to the Tag Editor.

Shortcut: Press the [Seg Leng] [Seg Leng] quick key.

To apply the properties of the current tag to ALL or multiple tags:

1. Enter Fn [Fn] + File [File] > "Apply Current Tag Settings".
   The Apply Current Tag Settings submenu appears.
2. Select "All Tags" or "Set Range" (and enter the range of selected tags) AND press OK [OK].
   If data loss may occur, a warning message will appear, asking for your confirmation to continue.
3. Press OK [OK].
   Once the change is completed, the screen returns to the Tag Editor.

To save the current properties as the default for subsequent tag editing:

1. Enter Fn [Fn] + File [File] > "Default Settings".
   The Default Settings submenu appears.
2. Select "Save Current Tag as Default" and press OK [OK].
   A warning message appears, asking for your confirmation to save the current tag properties as the default tag settings.
3. Press OK [OK].
   The screen returns to the Tag Editor.

5. Advanced Functions

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A. Introduction

In this chapter, detailed instructions are given on how you can:

- Remove a USB flash drive safely
- Change print job and cutter settings
- Change barcode and serialization settings
- Manage tag files and user graphics files
- Perform printer maintenance and firmware upgrades
- Perform other useful functions

Comprehensive listings of all the shortcut keys, menu options and printable symbols are also provided.

A shorthand is extensively used in this chapter. For example, this instruction, "Enter [Menu] > Quick Keys > Tag > Properties" means "Press [Menu] [Menu]; select "Quick Keys" and press [OK] [OK]; next select "Tag" and press [OK] [OK]; and finally select "Properties" and press [OK] [OK]".

B. USB Flash Drive Removal

Make sure that you see the USB icon on the LCD display screen.

1 Enter [Menu] [Menu] > "Remove USB drive".
A confirmation message will appear when it is safe to remove the drive.
2 Pull the USB flash drive out from the printer.

Shortcut: Press [Fn] [Fn]+ [9] [9] instead of entering [Menu] [Menu] > "Remove USB drive".

C. Multiprint vs. Continuous Print

A print job is a tag or set of tags that has been submitted to be printed. For detailed explanation on what a tag is, please see "4. Entering and Editing Text/Symbols".

In normal printing, a print job is printed only once. You can print multiple copies in two different types of sequences via:

- **Multiprint:** A [PRINT] setting whereby the entire print job is printed multiple times.
- **Continuous Print** (also known as **Contiprint**): A Tag Properties setting whereby each tag in the job will be printed multiple times before the next tag once [PRINT] is pressed.

For example, supposing you have three tags (A1, A2, A3) in a print job. If you choose Multiprint and two copies, the tags will be printed in this order: A1, A2, A3, A1, A2, A3.

On the other hand, if you choose Contiprint and two copies, the tags will be printed in this order: A1, A1, A2, A2, A3, A3.

To open the Multiprint menu:

1 Enter [Menu] [Menu] > Quick Keys > "Multiprint".

Shortcut: Press the [Fn] [Fn] + [PRINT] [PRINT] quick keys.

To print multiple copies of the current tag via Multiprint:

1 Enter [Fn] [Fn] + [PRINT] [PRINT] > "Current Tag".
2 In the Number of Copies box, enter your preferred number and press [OK] [OK].
The printer prepares to print the current tag multiple times.

To print multiple copies of a range of tags via Multiprint:

1 Enter [Fn] [Fn] + [PRINT] [PRINT] > "Range".
2 Type the "from" and "to" numbers and press [OK] [OK].
3 In the Number of Copies box, enter your preferred number and press [OK] [OK].
The printer prepares to print the selected tags multiple times.

To print multiple copies of all tags via Multiprint:

1 Enter [Fn] [Fn] + [PRINT] [PRINT] > "All Tags".
2 In the Number of Copies box, enter your preferred number and press [OK] [OK].
The printer prepares to print all tags multiple times.

To print multiple copies of the current tag via Continuous Print (Contiprint):

1 Enter Menu [Menu] > Quick Keys > Tag> Properties > Continuous Print.
2 In the Number of Copies box, enter your preferred number and press OK [OK].
3 Press ⊗ [Close] and then PRINT [PRINT].
The printer prepares to print the current tags multiple times.

Shortcut: Press the Fn [Fn] + Language [Language] quick keys.

To print multiple copies of a range of tags via Continuous Print (Contiprint):

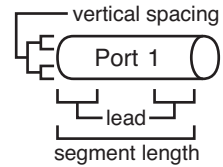
1 Enter Fn [Fn] + Language [Language] > "Range".
2 Type the "from" and "to" numbers and press OK [OK].
3 In the Number of Copies box, enter your preferred number and press OK [OK].
4 Press ⊗ [Close] and then PRINT [PRINT].
The printer prepares to print the selected tags multiple times.

To print multiple copies of all the tags via Continuous Print (Contiprint):

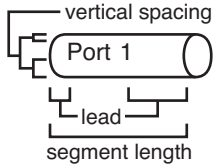
1 Enter Fn [Fn] + Language [Language] > "All Tags".
2 In the Number of Copies box, enter your preferred number and press OK [OK].
3 Press ⊗ [Close] and then PRINT [PRINT].
The printer prepares to print all tags multiple times.

D. Print Job Settings

In normal printing, the printout should be in the nominal position on the tube/label medium. In other words, the printed text (in one or two lines) should be neatly centered on each segment with a clear **lead** (the space on the left of the text) and equidistant **vertical spacings** (the spaces above and below the text).



If the printout is offset from the nominal position, you can adjust the **lead** (for insufficient leading space on the left) or the **vertical spacing** (for uneven vertical spacing) through the Tag menu.



To open the Tag menu:

1 Enter [Menu] [Menu] > Quick Keys > "Tag".

Shortcut: Press the [Fn] [Fn] + [File] [File] quick keys.

To adjust the lead for the current tag:

1 Enter [Fn] [Fn] + [File] [File] > Properties > Printing Adjustments > "Lead Adjust".
2 Using the [▲] [Up] or [▼] [Down] keys, adjust the lead and press [OK] [OK].

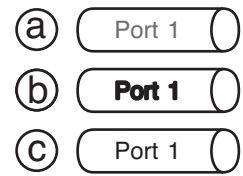
To adjust the vertical spacing for the current tag:

1 Enter [Fn] [Fn] + [File] [File] > Properties > Printing Adjustments > "Vertical Adjust".
2 Using the [▲] [Up] or [▼] [Down] keys, adjust the vertical spacing and press [OK] [OK].

To adjust segment length for the current tag:

1 Enter [Fn] [Fn] + [File] [File] > Properties > Printing Adjustments > "Length Adjust".
2 Using the [▲] [Up] or [▼] [Down] keys, adjust the segment length and press [OK] [OK].

If the printed text is too light (e.g. a) or too dark (e.g. b), you can change the printing density to "just right" (e.g. c).

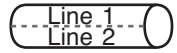


To adjust the printing density for all tags:

1 Enter [Menu] [Menu] > Settings > "Printing density".
2 Select the density you want and press [OK] [OK].

The density ranges from "1" (lightest) to "6" (darkest).

To improve readability, you can add a horiztonal line in the center of a tag.



To add a centerline for the current tag:

1. Enter [Fn] + [File] > Properties > Set Multiline > "Centerline".
2. Select "On" and press [OK].
   A horizontal line appears in the center of the current tag when it is printed.

To start printing, press [PRINT].

To return to the Tag Editor, press [Close].

E. Cutter Settings

By default, the BMP®91 printer automatically makes (i) a half cut (with a cut depth that ranges from "1" to "8") after the printing of every segment and (ii) a full cut at the end of every print job.

You can turn off the half cut (per segment) and then turn on the printing of a cut line (per segment), for example, for manual cutting later. You can also change the cut depth of the half cuts. Nevertheless, there will always be a full cut at the end of a print job. In other words, the last segment will always have a full cut.

To open the Cutter menu:

- Enter [Menu] [Menu] > Settings > "Cutter".

Shortcut: Press the [Fn] [Fn] + [Seg Leng] [Seg Length] quick keys.

To turn off (or on) half cut per segment:

1. Enter [Fn] [Fn] + [Seg Leng] [Seg Length] > Half Cut > "Action".
   The "Action" options appears.
2. Select "Off" (or "On") and press [OK] [OK].

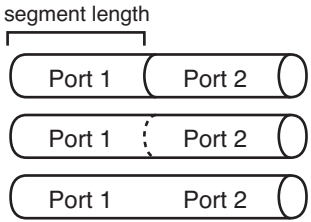
What is a segment? For example, if the print job has only one tag which is printed once, there will be only one segment. If the only tag is printed 10 times, there will be 10 segments. If the print job has a set of five tags which are printed 10 times, there will be 50 segments.

To turn on (or off) the printing of a cut line per segment:

1. Enter [Fn] [Fn] + [Seg Leng] [Seg Length] > Half Cut > "Cut Line"
   The "Cut Line" options appears.

2 Select “Solid” or ”Dotted” (or “None”) and press [OK] [OK].

Note: This option is available only when the cutter action is off.



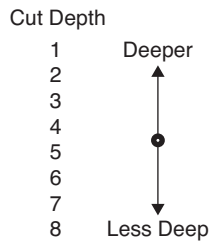
To change the cut depth of the half cuts:

1 Enter [Fn] [Fn] + [Seg Leng] [Seg Length] > Half Cut > “Cut Depth”.

The “Cut Depth” options appears.

2 Select a setting (“1” to ”8”) and press [OK] [OK].

Note: The lower the Cut Depth setting, the deeper the cut.



F. Barcode Settings

You can add numbers, text, symbols, barcodes and even serialization on a tag. You can also change the size, spacing, alignment and even orientation of the text.

You can print barcodes only when these conditions are satisfied:

- Labels are used, and
- General (horizontal) text orientation is chosen.

9 mm labels support only 1 line while 12 mm labels support up to 2 lines. Depending on the barcode type selected, the valid data range may vary. The segment has to be auto-sized or >25 mm (if fixed size). Only upper-case characters and digits 0-9 are allowed.

For step-by-step instructions, refer to “G. Formatting the Font in a Tag” and “L. Changing the Properties of Tags” in the chapter, “4. Entering Text & Symbols”.

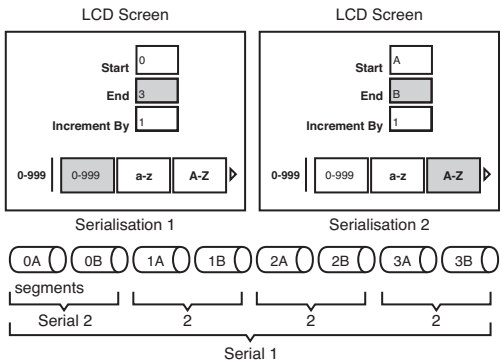
To add a barcode:

- Enter [Menu] [Menu] > “Barcode”.
- Select “Set Barcode” and select the “type option”.
- Select “Barcode Data” and enter the data.

If barcodes on two-line tags are required, the "HR" option must be off. If HR barcodes are required, the tags can only have one line.

G. Serialization

2D serialization



To add serialization:

1. Enter [Menu] [Menu] > Quick Keys > [Serialization].
2. Select a sequence (0-999 or a-z), enter the steps and press [OK] [OK].
3. To add a second sequence, repeat step1.

Shortcut: Press the [Serial] [Serial] quick key instead of going through the [Menu] [Menu] key.

H. Tag Files

The BMP®91 printer supports two types of files:

- "**Tag files**", managed through the **File** menu, which contain the contents and settings of a tag editing job.
- "**User graphics**", managed through the **User Graphics** menu, which are the external graphics that can be imported and inserted into a tag.

To open the File menu:

1. Enter [Menu] [Menu] > Quick Keys > "File".

Shortcut: Press the [File] [File] quick key.

To save a tag file:

1. Enter [File] [File] > "Save" (or "Save as").
2. Type in the filename and press [OK] [OK].

To name a file, you must use valid characters and at most 10 characters in length. These include numeric digits (e.g. “0”, “1”, “2”, “3”), lower or uppercase letters (e.g. “a”, “b”, “c”, “A”, “B”, “C”), underscore (“_”) and hyphen (“-”).

To open a tag file:

1 Enter File [File] > “Open”.

2 Select the file from a list (if any) and press OK [OK].

To delete a tag file:

1 Enter File [File] > “Delete”.

2 Select the file from a list (if any) and press OK [OK].

To import a tag file:

1 Plug a Flash drive into the printer’s USB port.

2 Enter File [File] > “Import”.

3 Select the file type.

4 Select the file from a list (if any) and press OK [OK].

To export a tag file:

1 Plug a Flash drive into the printer’s USB port.

2 Enter File [File] > “Export”.

3 Select the file type.

4 Select the file from a list (if any) and press OK [OK].

To open a CSV file:

1 Import the CSV file. (see earlier instructions on how to import a tag file)

2 Enter File [File] > “Open”.

3 Select the file from a list (if any) and press OK [OK].

I. User Graphics

To import a user graphics file (or to upload a user file)**:**

1 Plug a USB flash drive into the printer’s USB port.

2 Enter Menu [Menu] > User Graphics > “Import”.

3 Browse to the relevant filename and press OK [OK].

To insert a user data file (or to load an editing job)**:**

1 Enter Menu [Menu] > User Graphics > “Insert”.

2 Select the file from a list (if any) and press OK [OK].

To delete a user data file:

1 Enter Menu [Menu] > User Graphics > Delete.

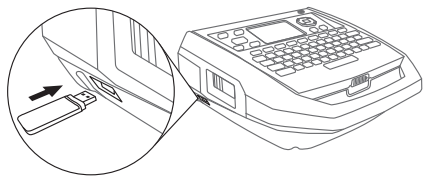
2 Select the file from a list (if any) and press OK [OK].

User graphics must be in black and white AND in BMP, JPEG, or PNG format (i.e. with bmp, jpg, or png file extensions). They must not exceed 10 Kbytes in file size and 110x110 dots in picture size. If they are in color, the LCD display will be in color. However, the printouts will be in black and white, and may not match the original colored graphics.

J. USB Flash Drive Connection

To perform firmware upgrade with a flash drive:

1 Insert the USB flash drive into the USB port on the left side of the printer as shown in the diagram.



2 Enter [Menu] [Menu] > System > "Upgrade through USB drive". A warning message appears, asking whether to save the current job.

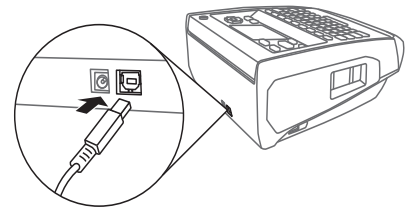
3 Press [OK] [OK], give an appropriate filename and press [OK] [OK] to save.
The firmware upgrade in the printer begins.

To exit from the USB Drive connection mode to the Tag editor, press [Close] [Close].

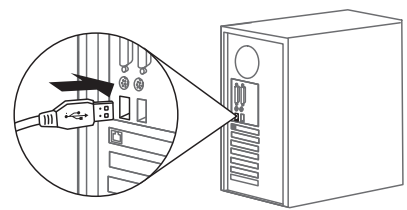
K. PC Connection

To connect the BMP®91 printer to a PC:

1. Insert the smaller, squarish end of the USB cable into the printer's socket as shown here.



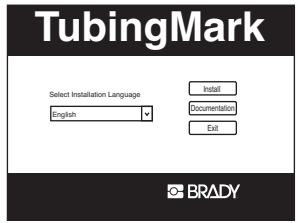
2. Plug the other end (with a rectangular connector) of the USB cable into a USB port on a personal computer (PC).



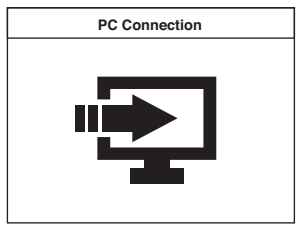
The USB cable on the PC side should be connected to a standard USB port.

Your BMP® 91 comes with TubingMark software to let you create print jobs on a PC.

1. Insert the CD-ROM into your computer's CD drive.
   The installation wizard starts automatically.
2. Select your language and click Install.
3. Follow the wizard to complete the installation.



4. Connect your printer and PC via a USB cable (for detailed instructions, see the previous page).
5. Enter [Menu] > System > "PC Connection".
   The printer goes into PC Connection mode.



6. You can now use TubingMark to create print jobs and send them to the printer.

To exit from the PC connection mode to the Tag editor, press [Close].

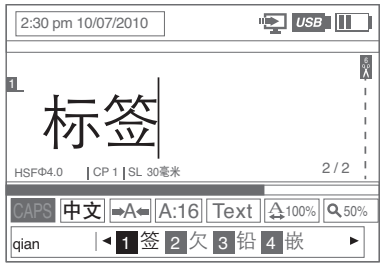
L. Other Userful Functions

To enter a Chinese word (e.g. " 标签 " which means "label"):

1. Ensure that the input mode is "Chinese".
   If it is not, press the [Language] quick key and toggle (keep pressing) until you see "中文" in the Tag Property bar at the bottom of the LCD screen.

2. Type "biao" and press the "2" key to select "2. 标 ".

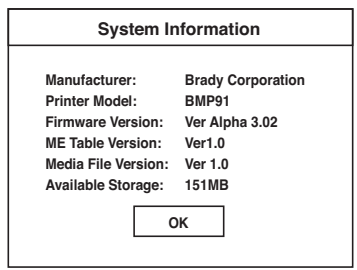
3 Type “qian”, press the right arrow key and then press the “1” key to select “1. 签 ”.



To enter English text, with half-width or full-width character spacing, press the Language [Language] quick key to toggle to “ 中 half-moon” or “ 中 full-moon” respectively.

To check the system information:

1 Enter Menu [Menu] > System > “System Information”.
The System Information screen appears, giving details on the manufacturer, printer model, firmware version, available storage, and so on.



To insert a date and time into a tag:

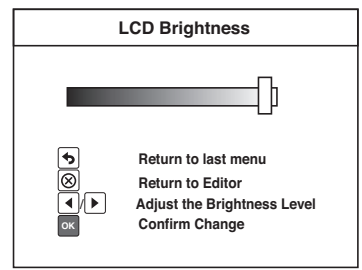
1 Enter Menu [Menu] > Insert Date/Time > “Insert Date/Time”.
The Date & Time icon appears where the cursor was.

The date/time refers to the start of the print job.

To insert a date only, enter “Insert Date” instead of “Insert Date/Time”. To insert time only, enter “Insert Time”.

To change the display brightness:

1 Enter Menu [Menu] > Settings > LCD Brightness.
The LCD Brightness screen appears.



2 Use the horizontal navigation keys (▲ [Up] or ▼ [Down]) to adjust the brightness and then press OK [OK].

The printer emits different types of sounds for different types of problems/issues. If necessary, you can turn off (or on) the sound.

To turn off (or on) the sound:

1 Enter [Menu] [Menu] > Settings > Sound.

2 Select "Off" (or "On") and then press [OK] [OK].

When the tube or label is stuck, you can use the Feed menu options to eject the medium or move it forward, backward, and even cut it.

To confirm ejecting a medium:

1 Enter [Menu] [Menu] > Feed > "Eject Media".

To confirm moving a medium forward:

1 Enter [Menu] [Menu] > Feed > "Forward".

To confirm moving a medium backward:

1 Enter [Menu] [Menu] > Feed > "Reverse".

To confirm moving a medium forward and cut it:

1 Enter [Menu] [Menu] > Feed > "Forward & Cut".

If and when necessary, you can restore the printer to factory settings.

To restore the printer to initial (factory) settings:

1 Enter [Menu] [Menu] > Settings > Factory Settings.
A warning message appears, "Current settings will be cleared."

2 Press [OK] [OK].

M. Lists of Shortcut Keys

Special Keys (in the same order as the printer's key display):

	Key(s)	Function (Menu access)
1	[Menu] [Menu]	To access a menu-based function.
2	[Clear All] [Clear All]	To clear all the text and settings for the current tag editing job.
3	[PRINT] [PRINT]	To start printing.
4	[Fn] [Fn] + [PRINT] [PRINT] (Multiprint)	To print multiple copies. (Menu > Quick Keys)
5	[Preview] [Preview]	To preview the current tag, a selected range of tags or all the tags. (Menu > Quick Keys)
6	[Fn] [Fn] + [Preview] [Preview] (Preview All)	To preview all the tags.
7	[Cancel Print] [Cancel Print]	To cancel the current printing job.

8	[OK]	To confirm a selected item/ action.
9	[Menu Return]	To return to previous menu/ screen
10	[Close]	To close and return to the Tag Editor

Quick Keys (in the same order as the printer's key display):

	Key(s)	Function (Menu access)
1	[Media]	Media Type (Menu > Quick Keys)
2	[Fn] + [Media]	Applications (Menu > Quick Keys)
3	[File]	File menu (Menu > Quick Keys)
4	[Fn] + [File]	Tag menu (Menu > Quick Keys)
5	[Language]	Language (Menu > Settings)
6	[Fn] + [Language]	Continuous Print (Tag > Properties)
7	[Seg Leng]	Segment Length (Tag > Properties)
8	[Fn] + [Seg Leng]	Set Cutter (Menu > Settings)
9	[Serial]	Serialization (Menu > Quick Keys)
10	[Fn] + [Serial]	Printing Adjustments (Tag > Properties)
11	[Rotation]	Text Rotation (Tag > Properties)
12	[Fn] + [Rotation]	Text Alignment (Tag > Properties)
13	[Symbol]	Symbols (Menu > Quick Keys)
14	[Fn] + [Symbol]	Frame (Tag > Properties)
15	[Remove]	Media removal
16	[Fn] + [Remove]	Maintenance (Menu > Quick Keys)
17	[Font Size]	Font Size (Menu > Font)
18	[Fn] + [Font Size]	Character Spacing (Menu > Font)

To see a layout of the keys on the printer, refer to the "External components of the printer section" in Chapter 1.

To access a commonly used function directly, press a shortcut key. For example, to open the File menu directly, press the [File] quick key instead of going through the longer path of pressing [Menu], then selecting "Quick Keys" followed by "File".)

To access ALL the functions supported on the printer, press [Menu] [Menu] (see the next section).

N. Lists of Menu options

In this listing, (a) the names of menus and submenus are in UPPERCASE, (b) the names of menu options are in quotes, and (c) Notes are in normal text case.

All the functions supported by the BMP®91 printer are listed and accessible through a multi-level series of menus, submenus and options on the LCD screen.

When the Menu [Menu] key is pressed, a set of menus ("**Level 1 menus**") appears:

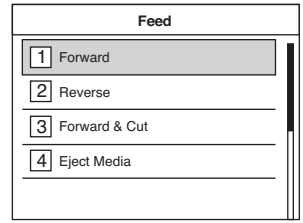
1. "Remove USB Drive" option (also accessible via [Fn] + [9])
2. SETTINGS menu
3. FONTS menu
4. BARCODE menu
5. FEED menu
6. INSERT DATE/TIME menu
7. USER GRAPHICS menu
8. SYSTEM menu
9. QUICK KEYS menu

When one of these Level 1 menus is entered (i.e. selected on-screen and confirmed by pressing the [OK] key on the printer), another set of menus ("Level 2 menus") will often appear.

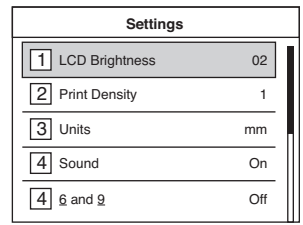
For example: When you press Menu [Menu] and then select "Font", the following set of **Level 2 menus** (submenus) appears.

In some cases, when you choose a Level 1 menu, only a set of options (not menus) appear.

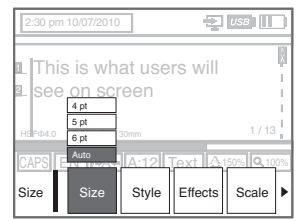
For example: When you press Menu [Menu] and then select "Feed", the following set of **Level 2 options** (not menus) appears.



The lower-level menus or options in these submenus can also be navigated vertically (as in a list menu).



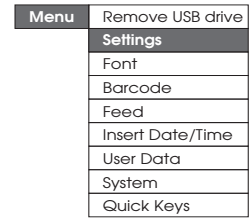
The lower-level menus or options can be navigated horizontally (as in a context menu).



For easy reference, all the functions supported by the BMP®91 printer and accessible through the Menu [Menu] key are listed by the respective Level 1 menus in the next few pages.

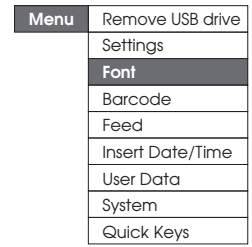
1. Settings menu

MENUS (Level 2)	MENUS (Level 3) / "Options"	MENUS (Level 4) / "Options" / Notes
LCD BRIGHTNESS	"0" – "5" (Dark to Bright)	–
PRINT DENSITY	"1" – "6"	Level of darkness.
UNITS	"mm"/"inch"	Default is mm.
SOUND	"On"/"Off"	Different sounds for different types of messages.
6 and 9	"On"/"Off"	Useful when the digits are read upside down.
DATE	DATE FORMAT	"dd/mm/yyyy", "mm/dd/yyyy", "yyyy/mm/dd"
	SET DATE	Change the digits in each text box.
	SHOW ON LCD	"Yes" / "No"
TIME	TIME FORMAT	"12-hour" / "24-hour"
	SET TIME	Change the digits in each text box.
	SHOW ON LCD	"Yes" / "No"
SLEEP MODE	"Off"/"3min"/"5min"/"10min"	–
AUTO POWER OFF	"On"/"Off" (Default: "Off")	–
LANGUAGE	MENU	"English" / " 简体中文 "
	INPUT	"English" / " 中文拼音 "
CUTTER	HALF CUT	–
		ACTION ("On"/"Off"), CUT LINE ("None"/ "Solid"/"Dotted"), CUT DEPTH ("1" – "8")
FACTORY SETTINGS	"OK"/"Cancel"	–



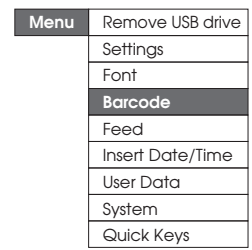
2. Font menu

MENUS (Level 2)	MENUS (Level 3) / "Options"	"Options"
SIZE	"Auto-sized" or Fixed-size (from "4 pts" – "28pts")	–
STYLE	BOLD	"On"/"Off"
	ITALIC	"On"/"Off"
	UNDERLINE	"On"/"Off"
EFFECTS	"None", "Superscript" or "Subscript"	–
SCALE	"50 %" – "150 %"	–
SPACING	"Normal", or "Expanded 1"/"2"/"3"/"4"	–



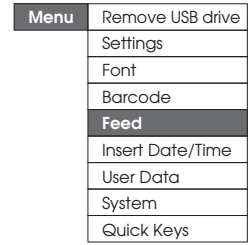
3. Barcode menu

MENUS (Level 2)	MENUS (Level 3) / "Options"	"Options" / Notes
SET BARCODE	TYPE submenu	"Code 128" / "Code 39"
	HR (Human Readable) TEXT	"On"/"Off"
BARCODE DATA	Text box for entering barcode data (maximum 30 characters)	To confirm inserting data, press [OK] [OK].



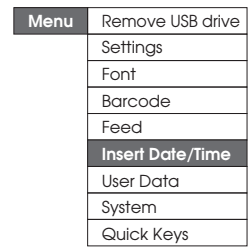
4. Feed menu

"Options"	Notes
"Forward"	To confirm moving a medium forward, press [OK] [OK].
"Reverse"	To confirm moving a medium backward, press [OK] [OK].
"Forward & Cut"	To confirm moving a medium forward and cut it, press [OK] [OK].
"Eject Media"	To confirm ejecting a medium, press [OK] [OK].



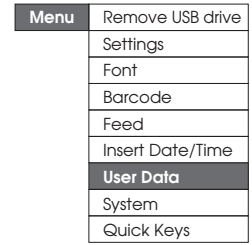
5. Insert Date/Time menu

"Options"	Notes
"Insert Date"	To confirm inserting a Date icon [graphic] into the current tag, press [OK] [OK].
"Insert Time"	To confirm inserting a Time icon [graphic] into the current tag, press [OK] [OK].
"Insert Date & Time"	To confirm inserting a Date & Time icon [graphic] into the current tag, press [OK] [OK].
"Insert Time & Date"	To confirm inserting a Time & Date icon [graphic] into the current tag, press [OK] [OK].



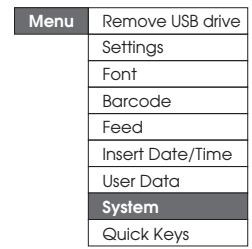
6. User Graphics menu

"Options"	Notes
"Import"	Select from: File List To confirm importing the selected file, press [OK] [OK].
"Insert"	Select from the Graphics List To confirm inserting the selected graphic at the current cursor position, press [OK].
"Delete"	Select from the Graphics List To confirm deleting the selected graphic, press [OK] [OK].



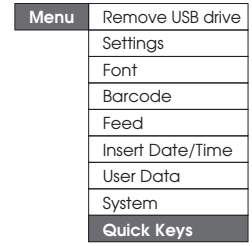
7. System menu

"Options"	Notes
"Upgrade through USB drive"	1. Check the USB Flash Drive. 2. In the root directory, look for the Brady.tar.gz file.
"PC connection"	Check the USB connection to PC and go into FW upgrading mode. Wait for file transfer from ByTES PC Tubing Editing software.
"System Information"	1. Manufacturer; 2. Printer Model; 3. Firmware Version; 4. ME Table Version; 5. Media File Version; 6. Available Storage Space



8. Quick Keys menu

MENUS (Level 2)	MENUS (Level 3) /"Options"	"Options" / Notes
MULTI PRINT	"Current Tag"	—
	"All Tags"	—
	SPECIFIC TAGS submenu	Enter numbers into the text boxes for "Start Tag" (default "1"), "End Tag" and "Increment By" ("1").
APPLICATIONS	GENERAL submenu	"Fixed-size" / "Auto-Sized"
	VERTICAL submenu	"Fixed-size" / "Auto-Sized"
	PATCH PANEL submenu	"No. of Ports", "Set Width" (for labels only)
	TERMINAL BLOCK submenu	"No. of Blocks", "Set Width" (for labels only)
FILE	"Open"	—
	"Save"	
	"Save as"	
	"Delete"	
	"Import"	
	"Export"	
MAINTENANCE	—	Once this option is entered, the printer will move all its mechanical parts to their home positions.
MEDIA TYPE	TUBE	Select tube width and press [OK] [OK].
	HEAT-SHRINK ROLL	Select tube width and press [OK] [OK].
	HEAT-SHRINK CARTRIDGE	Select tube width and press [OK] [OK].
	LABEL	Select label width and press [OK] [OK].



MENUS (Level 2)	MENUS (Level 3) /"Options"	"Options" / Notes
PREVIEW	"Current Tag"	
	"All Tags"	
	SPECIFIC TAGS submenu	Start Tag (default "0"), End Tag, Increment By ("1")
	ZOOM submenu	"50%" – "200%"
SERIALIZATION	0-999 submenu	Start (default "0"), End ("0"), Increment by ("1")
	a-z submenu	Start (default "a"), End ("z"), Increment by ("1")
	A-Z submenu	Start (default "A"), End ("Z"), Increment by ("1")
	Paddings submenu	Can be applied only to numeric serialization.
SYMBOL	LATIN 1 & 2 submenus	To confirm inserting a selected symbol at the current cursor position, press [OK] [OK].
	GREEK submenu	
	CYRILLIC submenu	
	GENERAL submenu	For more details on the symbols supported by the BMP®91 printer, please refer to the next section "Listing of all symbols supported".
	NUMBER submenu	
	BLOCKS submenu	
	JAPANESE submenu	
	CURRENCY submenu	
	BOPOMOFO submenu	
	UNITS submenu	
	SPECIAL submenu	
	ELECTRIC submenu	

MENUS (Level 2)	MENUS (Level 3) /"Options"	MENUS (Level 4) / "Options" / Notes
TAG	EDIT submenu	"Go To" (enter Tag number in text box) "Copy" "Cut" "Paste" (before or after current tag) "Insert" DELETE ("Current Tag", "All Tags", or SET RANGE)
	PROPERTIES submenu Note: All changes in Properties are applied to the current Tag". To apply to all tags, use Apply Current Tag Settings submenu	• SET MULTI-LINE: "1"/"2"/"3 lines"; Center Line ("On"/"Off") • ALIGNMENT: Horizontal ("Left"/"Center"/"Right"), Vertical ("Top"/"Middle"/"Bottom") • FRAME: Select "None" or a frame • ROTATION: "Horizontal", "Hor Rotated", "Vertical" • CONTINUOUS PRINT: Number (default is "1") • SEGMENT LENGTH: "Auto-sized"/"Fixed-size" • PRINTING ADJUSTMENTS: "Lead Adjust", "Vertical Adjust", "Length Adjust" (in mm)
	APPLY CURRENT TAG SETTINGS submenu	* "All Tags" * SET RANGE
	DEFAULT SETTINGS submenu	"Save Current Tag as default" "Reset for Current Media" "Reset for All Media"

O. Lists of printable Symbols

The types of symbols supported by the BMP®91 printer include:

1 Latin 1 symbols
2 Latin 2 symbols
3 Greek symbols
4 Cyrillic symbols
5 General symbols
6 Number symbols
7 Blocks symbols
8 Japanese symbols
9 Currency symbols
10 BPMF symbols
11 Units symbols
12 Special symbols
13 Electric symbols

If the symbol you want is not in these lists, you can import and insert your own symbols using the "User Graphics" menu. However, please note that all "User Graphics" symbols must:

- be in black and white
- be in BMP, JPEG, or PNG formats and have bmp, jpg, or png file extensions
- **NOT** exceed 10 Kbytes in file size
- **NOT** exceed 110 x 110 dots in picture size

If your graphics are in color, the LCD screen will display them in color. However, the printouts will be in black and white, and may not match the original colored graphics.

1. Latin 1 symbols

B 0002	Scroll Lock 0003	W 0017	Z 001A	! Esc 001B	" \ 001C	#] 001D	$ Shift + 6 001E
% Shift + - 001F	Space 0020	! Shift + 1 0021	" Shift + ' 0022	# Shift + 3 0023	$ Shift + 4 0024	% Shift + 5 0025	& Shift + 7 0026
' ' 0027	(Shift + 9 0028	) Shift + 0 0029	* Shift + 8 002A	+ Shift + = 002B	, , 002C	- - 002D	. . 002E
/ / 002F	0 0 0030	1 1 0031	2 2 0032	3 3 0033	4 4 0034	5 5 0035	6 6 0036
7 7 0037	8 8 0038	9 9 0039	: Shift + ; 003A	; ; 003B	< Shift + , 003C	= = 003D	> Shift + . 003E
? Shift + / 003F	@ Shift + 2 0040	A Shift + A 0041	B Shift + B 0042	C Shift + C 0043	D Shift + D 0044	E Shift + E 0045	F Shift + F 0046
G Shift + G 0047	H Shift + H 0048	I Shift + I 0049	J Shift + J 004A	K Shift + K 004B	L Shift + L 004C	M Shift + M 004D	N Shift + N 004E
O Shift + O 004F	P Shift + P 0050	Q Shift + Q 0051	R Shift + R 0052	S Shift + S 0053	T Shift + T 0054	U Shift + U 0055	V Shift + V 0056
W Shift + W 0057	X Shift + X 0058	Y Shift + Y 0059	Z Shift + Z 005A	[[005B	\ \ 005C	]] 005D	^ Shift + 6 005E
_ Shift + - 005F	` ` 0060	a A 0061	b B 0062	c C 0063	d D 0064	e E 0065	f F 0066
g G 0067	h H 0068	i I 0069	j J 006A	k K 006B	l L 006C	m M 006D	n N 006E
o O 006F	p P 0070	q Q 0071	r R 0072	s S 0073	t T 0074	u U 0075	v V 0076
w W 0077	x X 0078	y Y 0079	z Z 007A	{ Shift + [007B	| Shift + \ 007C	} Shift +] 007D	~ Shift + ` 007E

2. Latin 2 symbols

¤ 009E	§ 00A1	¨ 00A2	¤ 00A4	§ 00A7	¨ 00A8	° 00AA	± 00AB
° 00B0	± 00B1	· 00B7	00C4	× 00D1	× 00D7	à 00DA	á 00DB
à 00E0	á 00E1	è 00E2	é 00E3	ê 00E4	ì 00E6	í 00E7	è 00E8
é 00E9	ê 00EA	ì 00EC	í 00ED	÷ 00F1	ò 00F2	ó 00F3	ú 00F4
ü 00F6	÷ 00F7	ē 00F8	ù 00F9	ú 00FA	# 00FB	ü 00FC	Ы 00FD
ā 0101	ē 0113	ě 011B	ī 012B	ń 0144	ň 0148	ō 014D	ū 016B
ǎ 01CE	ǐ 01D0	ǒ 01D2	ǔ 01D4	ǖ 01D6	ǘ 01D5	ǚ 01DA	ǜ 01DC
ǹ 01F9	a 0251	g 0261	ˇ 02C7	ˉ 02C9	ˊ 02CA	ˋ 02CB	˙ 02D9

3. Greek symbols

Α 0391	Β 0392	Γ 0393	Δ 0394	Ε 0395	Ζ 0396	Η 0397	Θ 0398
Ι 0399	Κ 039A	Λ 039B	Μ 039C	Ν 039D	Ξ 039E	Ο 039F	Π 03A0
Ρ 03A1	Σ 03A3	Τ 03A4	Υ 03A5	Φ 03A6	Χ 03A7	Ψ 03A8	Ω 03A9
α 03B1	β 03B2	γ 03B3	δ 03B4	ε 03B5	ζ 03B6	η 03B7	θ 03B8
ι 03B9	κ 03BA	λ 03BB	μ 03BC	ν 03BD	ξ 03BE	ο 03BF	π 03C0
ρ 03C1	σ 03C3	τ 03C4	υ 03C5	φ 03C6	χ 03C7	ψ 03C8	ω 03C9

4. Cyrillic symbols

Ё 0401	А 0410	Б 0411	В 0412	Г 0413	Д 0414	Е 0415	Ж 0416
З 0417	И 0418	Й 0419	К 041A	Л 041B	М 041C	Н 041D	О 041E
П 041F	Р 0420	С 0421	Т 0422	У 0423	Ф 0424	Х 0425	Ц 0426
Ч 0427	Ш 0428	Щ 0429	Ъ 042A	Ы 042B	Ь 042C	Э 042D	Ю 042E
Я 042F	а 0430	б 0431	в 0432	г 0433	д 0434	е 0435	ж 0436
з 0437	и 0438	й 0439	к 043A	л 043B	м 043C	н 043D	о 043E
п 043F	р 0440	с 0441	т 0442	у 0443	ф 0444	х 0445	ц 0446
ч 0447	ш 0448	щ 0449	ъ 044A	ы 044B	ь 044C	э 044D	ю 044E
я 044F	ё 0451						

5. General symbols

							- 2010
– 2013	— 2014	― 2015	‖ 2016	‘ 2018	’ 2019	“ 201C	” 201D
‥ 2025	… 2026	‰ 2030	′ 2032	″ 2033	‵ 2035	※ 203B	€ 20AC
℃ 2103	℅ 2105	℉ 2109	№ 2116	™ 2121	Ⅰ 2160	Ⅱ 2161	Ⅲ 2162
Ⅳ 2163	Ⅴ 2164	Ⅵ 2165	Ⅶ 2166	Ⅷ 2167	Ⅸ 2168	Ⅹ 2169	Ⅺ 216A
Ⅻ 216B	ⅰ 2170	ⅱ 2171	ⅲ 2172	ⅳ 2173	ⅴ 2174	ⅵ 2175	ⅶ 2176
ⅷ 2177	ⅸ 2178	ⅹ 2179	← 2190	↑ 2191	→ 2192	↓ 2193	↖ 2196
↗ 2197	↘ 2198	↙ 2199	∈ 2208	∏ 220F	∑ 2211	∕ 2215	√ 221A
∝ 221D	∞ 221E	∟ 221F	∠ 2220	∣ 2223	∥ 2225	∧ 2227	∨ 2228
∩ 2229	∪ 222A	∫ 222B	∮ 222E	∴ 2234	∵ 2235	∶ 2236	∷ 2237
∽ 223D	≈ 2248	≊ 224C	≒ 2252	≠ 2260	≡ 2261	≤ 2264	≥ 2265
≦ 2266	≧ 2267	≮ 226E	≯ 226F	⊕ 2295	⊙ 2299	⊥ 22A5	◿ 22BF
⌒ 2312							

6. Number symbols

	① 2460	② 2461	③ 2462	④ 2463	⑤ 2464	⑥ 2465	⑦ 2466
⑧ 2467	⑨ 2468	⑩ 2469	(1) 2474	(2) 2475	(3) 2476	(4) 2477	(5) 2478
(6) 2479	(7) 247A	(8) 247B	(9) 247C	(10) 247D	(11) 247E	(12) 247F	(13) 2480
(14) 2481	(15) 2482	(16) 2483	(17) 2484	(18) 2485	(19) 2486	(20) 2487	1. 2488
2. 2489	3. 248A	4. 248B	5. 248C	6. 248D	7. 248E	8. 248F	9. 2490
10. 2491	11. 2492	12. 2493	13. 2494	14. 2495	15. 2496	16. 2497	17. 2498
18. 2499	19. 249A	20. 249B					

7. Blocks symbols

2571	2572	2573	2581	2582	2583	2584	2585
2586	2587	2588	2589	258A	258B	258C	258D
258E	258F	2593	2594	2595	25A0	25A1	25B2
25B3	25BC	25BD	25C6	25C7	25CB	25CE	25CF
25E2	25E3	25E4	25E5	2605	2606	2609	2640
2642	3001	3002	3003				
3007	3008	3009	300A	300B	300C	300D	
300E	300F	3010	3011	3012	3013	3014	3015
3016	3017	301D	301E				

8. Japanese symbols

						ぁ 3041	あ 3042
ぃ 3043	い 3044	ぅ 3045	う 3046	ぇ 3047	え 3048	ぉ 3049	お 304A
か 304B	が 304C	き 304D	ぎ 304E	く 304F	ぐ 3050	け 3051	げ 3052
こ 3053	ご 3054	さ 3055	ざ 3056	し 3057	じ 3058	す 3059	ず 305A
せ 305B	ぜ 305C	そ 305D	ぞ 305E	た 305F	だ 3060	ち 3061	ぢ 3062
っ 3063	つ 3064	づ 3065	て 3066	で 3067	と 3068	ど 3069	な 306A
に 306B	ぬ 306C	ね 306D	の 306E	は 306F	ば 3070	ぱ 3071	ひ 3072
び 3073	ぴ 3074	ふ 3075	ぶ 3076	ぷ 3077	へ 3078	べ 3079	ぺ 307A
ほ 307B	ぼ 307C	ぽ 307D	ま 307E	み 307F	む 3080	め 3081	も 3082
ゃ 3083	や 3084	ゅ 3085	ゆ 3086	ょ 3087	よ 3088	ら 3089	り 308A
る 308B	れ 308C	ろ 308D	ゎ 308E	わ 308F	ゐ 3090	ゑ 3091	を 3092
ん 3093	゛ 309B	゜ 309C	ゝ 309D	ゞ 309E	ァ 30A1	ア 30A2	ィ 30A3

イ 30A4	ゥ 30A5	ウ 30A6	ェ 30A7	エ 30A8	ォ 30A9	オ 30AA	カ 30AB
ガ 30AC	キ 30AD	ギ 30AE	ク 30AF	グ 30B0	ケ 30B1	ゲ 30B2	コ 30B3
ゴ 30B4	サ 30B5	ザ 30B6	シ 30B7	ジ 30B8	ス 30B9	ズ 30BA	セ 30BB
ゼ 30BC	ソ 30BD	ゾ 30BE	タ 30BF	ダ 30C0	チ 30C1	ヂ 30C2	ッ 30C3
ツ 30C4	ヅ 30C5	テ 30C6	デ 30C7	ト 30C8	ド 30C9	ナ 30CA	ニ 30CB
ヌ 30CC	ネ 30CD	ノ 30CE	ハ 30CF	バ 30D0	パ 30D1	ヒ 30D2	ビ 30D3
ピ 30D4	フ 30D5	ブ 30D6	プ 30D7	ヘ 30D8	ベ 30D9	ペ 30DA	ホ 30DB
ボ 30DC	ポ 30DD	マ 30DE	ミ 30DF	ム 30E0	メ 30E1	モ 30E2	ャ 30E3
ヤ 30E4	ュ 30E5	ユ 30E6	ョ 30E7	ヨ 30E8	ラ 30E9	リ 30EA	ル 30EB
レ 30EC	ロ 30ED	ヮ 30EE	ワ 30EF	ヰ 30F0	ヱ 30F1	ヲ 30F2	ン 30F3
ヴ 30F4	ヵ 30F5	ヶ 30F6	ー 30FC	ヽ 30FD	ヾ 30FE		

9. Currency symbols

$ Shift + 4 0024	€ 20AC	¢ FFE0	£ FFE1	¥ FFE5			

10. BPMF (BoPoMoFo) symbols

						ㄅ 3105	ㄆ 3106
ㄇ 3107	ㄈ 3108	ㄉ 3109	ㄊ 310A	ㄋ 310B	ㄌ 310C	ㄍ 310D	ㄎ 310E
ㄏ 310F	ㄐ 3110	ㄑ 3111	ㄒ 3112	ㄓ 3113	ㄔ 3114	ㄕ 3115	ㄖ 3116
ㄗ 3117	ㄘ 3118	ㄙ 3119	ㄚ 311A	ㄛ 311B	ㄜ 311C	ㄝ 311D	ㄞ 311E
ㄟ 311F	ㄠ 3120	ㄡ 3121	ㄢ 3122	ㄣ 3123	ㄤ 3124	ㄥ 3125	ㄦ 3126
ㄧ 3127	ㄨ 3128	ㄩ 3129					

11. Units symbols

			㈠ 3220	㈡ 3221	㈢ 3222	㈣ 3223	㈤ 3224
㈥ 3225	㈦ 3226	㈧ 3227	㈨ 3228	㈩ 3229	㈱ 3231	㊣ 32A3	mg 33BE
kg 338F	mm 339C	cm 339D	km 339E	m² 33A1	cc 33C4	KM 33CE	ln 33D1
log 33D2	mil 33D5						

12. Special symbols

B 0002	Scroll Lock 0003	G 0007	W 0017	① Z 001A	② Esc 001B	③ \ 001C	④ ! 001D
⑤ Shift + 6 001E	⑥ Space 0020	⑦ Shift + 1 0021	⑧ Shift + ' 0022	⑨ Shift + 3 0023	⑩ Shift + 5 0025	Ⓐ Shift + 7 0026	Ⓑ ` 0027
Ⓒ Shift + 9 0028	Ⓓ Shift + 0 0029	Ⓔ Shift + B 002A	Ⓕ Shift + = 002B	Ⓖ ` 002C	Ⓗ ` 002D	Ⓘ ` 002E	Ⓙ / 002F
Ⓚ 0 0030	Ⓛ 1 0031	Ⓜ 2 0032	Ⓝ 3 0033	Ⓞ 4 0034	Ⓟ 5 0035	Ⓠ 6 0036	Ⓡ 7 0037
Ⓢ 8 0038	Ⓣ 9 0039	Ⓤ Shift + ; 003A	Ⓥ ; 003B	Ⓦ Shift + , 003C	Ⓧ = 003D	Ⓨ Shift + . 003E	Ⓩ Shift + / 003F
ⓐ Shift + 2 0040	ⓑ Shift + A 0041	ⓒ Shift + B 0042	ⓓ Shift + C 0043	ⓔ Shift + D 0044	ⓕ Shift + E 0045	ⓖ Shift + F 0046	ⓗ Shift + G 0047
ⓘ Shift + H 0048	ⓙ Shift + I 0049	ⓚ Shift + J 004A	ⓛ Shift + K 004B	ⓜ Shift + L 004C	ⓝ Shift + M 004D	ⓞ Shift + N 004E	ⓟ Shift + O 004F
ⓠ Shift + P 0050	ⓡ Shift + Q 0051	ⓢ Shift + R 0052	ⓣ Shift + S 0053	ⓤ Shift + T 0054	ⓥ Shift + U 0055	ⓦ Shift + 0056	ⓧ Shift + W 0057
ⓨ Shift + X 0058	ⓩ Shift + Y 0059	Shift + ; 005A					

		Å F101	℃ F102	cal F103	cc F104	㎐ F105	cm^2 F106
cm^3 F107	cm F108	dB F109	dl F10A	ha F10B	Hz F10C	kΩ F10D	°K F10E
kg F10F	kHz F110	km^2 F111	km F112	kV F114	kW F115	l F116	m^2 F117
m^3 F118	mA F119	mg F11A	MHz F11B	ml F11C	mm^2 F11D	mm^3 F11E	mm F11F
ms F120	mV F121	mW F122	nF F123	ns F124	Ω F125	pF F126	μF F127
μs F128	VA F129						

			ف F12B	B/. F12C	$b F12D	BZ$ F12E	₡ F12F
₡ F130	KM F131	ДеН F132	$ F133	RD$ F134	€ F135	ƒ F136	Ft F137
CHF F138	J$ F139	₭ F13A	Kč F13B	Kr F13C	kn F13D	Ls F13E	Lek F13F
L F140	ЛВ F141	MT F142	lei F143	MaH F144	₪ F145	S/. F146	₱ F147
£ F148	P F149	Q F14A	R$ F14B	﷼ F14C	ʃ F14D	RM F14E	₨ F14F
p. F150	Rp F151	₸ F152	₩ F153	¥ F154	zł F155	F156	(代) F157
FAX F158	KK F159	No. F15A	TEL F15B	(有) F15C	(株) F15D	F15E	

F1B1	F1B2	F1B3	F1B4	F1B5	F1B6	F1B7	F1B8
F1B9	F1BA	F1BB	F1BC	F1BD	F1BE	F1BF	F1C0
F1C1	F1C2	F1C3	F1C4	F1C5	F1C6	F1C7	F1C8
F1C9	F1CA	F1CB	F1CC	F1CD	F1CE	F1CF	F1D0
F1D1	F1D2	F1D3	F1D4	F1D55	F1D6	F1D7	F1D8
F1D9	F1DA	F1DB	F1DC	F1DD	F1DE	F1DF	F1E0
F1E1	F1E2	F1E3	F1E4	F1E5	F1E6	F1E7	F1E8
F1E9	F1EA	F1EB	F1EC	F1ED	F1EE	F1EF	F1F0
F1F1	F1F2	F1F3	F1F4	F1F5	F1F6	F1F7	F1F8
F1F9	F1FA	F1FB	F1FC	F1FD	F1FE	F1FF	F200

13. Electric symbols

F301	F302	F303	F304	F305	F306	F307	F308	F309	F310
F311	F312	F313	F314	F315	F316	F317	F318	F319	F320
F321	F322	F323	F324	F325	F326	F327	F328	F329	F330
F331	F332	F333	F334	F335	F336	F337	F338	F339	F340
F341	F15F	F160	F172	F165	F167	F168	F16A	F162	F163
F164	F17C	F17D	F169	F16D	F16F	F170	F16E	F182	F183
F184	F185	F186	F18F	F190	F191	F192	F174	F175	F176
F177	F179	F17A	F180	F181	F193	F187	F188	F189	F199
F19A	F19B	F194	F195	F198	F19C	F19E	F19F	F1A2	F18C

6. Maintaining Your Printer

A. Introduction . . . . . page 77
B. Cleaning the Printer . . . . . page 77
C. Cleaning the Rollers . . . . . page 78
D. Cleaning Adhesive Build-up . . . . . page 78
E. Replacing the Platen & Wrap rollers . . . . . page 79
F. Replacing the Cutter . . . . . page 81
G. Replacing the Ribbon Cartridge . . . . . page 82
H. Replacing the Heat-shrink or Label Cartridge . . . . . page 83

A. Introduction

To keep your printer in tip-top condition, it is good practice to clean your printer (including the transport rollers inside) regularly.

You may also need to replace the platen roller or the cutter if and when they wear out. The ribbon cartridge and the tube/label cartridge also needs replacement once the medium runs out.

It is also good practice to press [Maintain] before you switch off the printer so that the printer will move all its mechanical parts to the home positions.

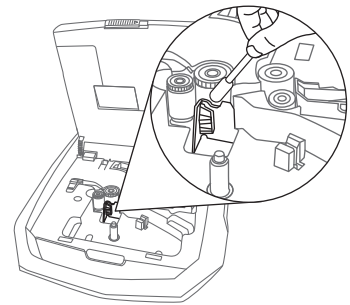
Never use benzene or strong solvents when cleaning the printer body or its internal parts. This could damage the printer and not just the finish.

B. Cleaning the Printer

1 If the printer is still on, press ⏻ [Power] to switch it off.
2 Dampen a cloth with water and wring out throughly.
3 Wipe the body with the cloth.
4 Dry the body with another clean dry cloth.

To clean the printhead:

1 Use a cotton swab to clean dirt from the print head.



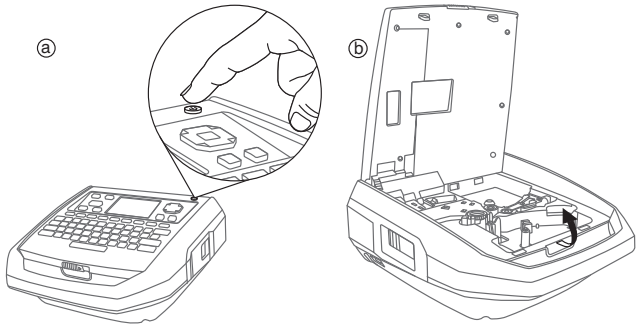
Be very careful not to scratch the printhead.
If the printhead is extremely dirty, add a few drops of at least 95% Isopropyl alcohol (>= 95% IPA) to the cotton swab, and then wipe the dirt away.

Let the printhead dry before resuming operation.

C. Cleaning the Rollers

1 If the printer is still on, press ⏻ [Power] to switch it off.

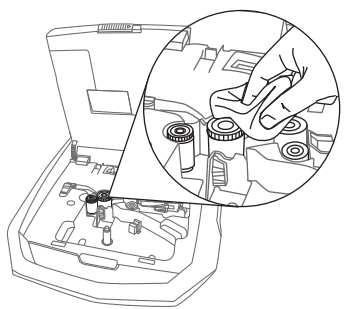
2 Pull the cover latch and open the printer cover.



3 Use gauze to wipe away any dirt on the four rollers.

If the roller is extremely dirty, add a few drops of at least 95% Isopropyl alcohol (>= 95% IPA) to the gauze, then wipe the dirt away.

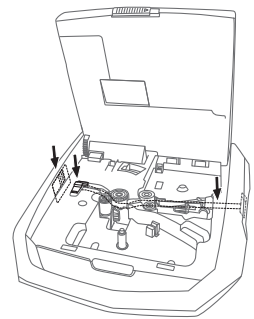
Let the rollers dry before resuming operation.
In particular, the platen roller should be removed for more thorough cleaning. For detailed instructions, refer to “E. Replacing the Platen & Wrap rollers”.



4 Close the cover firmly so that you can hear and feel that it latches.

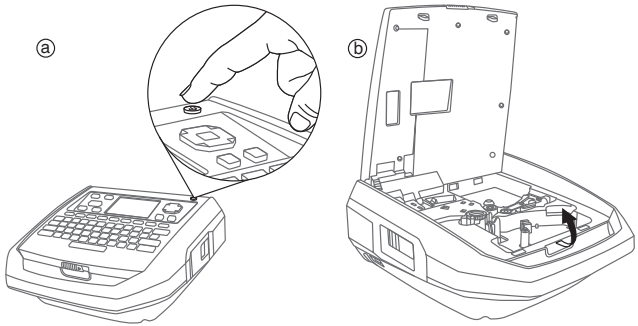
D. Cleaning Adhesive Build-up

After printing around 50 m of labels, you should check for adhesive build-up, that is, adhesive that accumulate in the printer over time, especially in the cutter area, the media output area and the media path.



To clean the adhesive build-up in the printer:

1. If the printer is still on, press ⏻ [Power] to switch it off.
2. Pull the cover latch and open the printer cover.

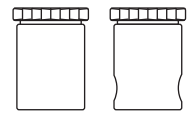


3. Use a cotton swab with a few drops of at least 95% Isopropyl alcohol (>= 95% IPA) and wipe away the adhesive.
4. Close the cover firmly so that you can hear and feel that it latches.

E. Replacing the Platen & Wrap rollers

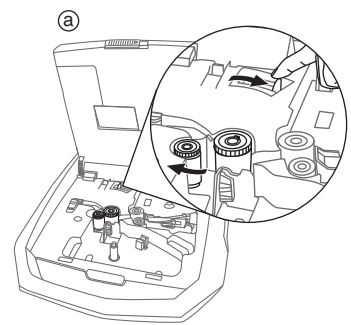
Your platen roller will wear out faster if you use the printer to print on tubes. So you may want to keep one set of platen and wrap rollers for tube printing and another set for label printing.

As time passes, the print quality may deteriorate visibly because the bottom part of the platen roller has worn out significantly

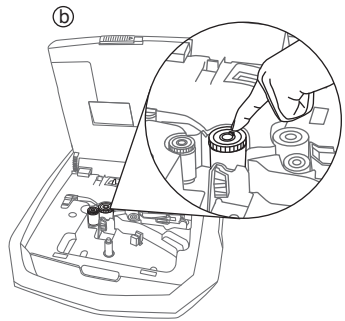


You should then replace the rollers:

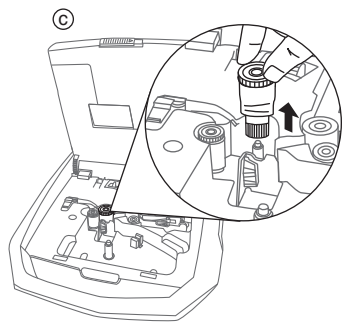
1. If the printer is still on, press ⏻ [Power] to switch it off.
2. With one hand, press and hold the wrap roller latch.



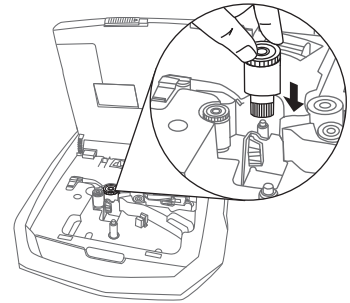
3 With the other hand, press and hold onto the snap of the old platen roller.



4 Pull the platen roller up and remove it.



5 Insert the new platen roller, pushing it down the spindle until you can hear and feel it snap into place.



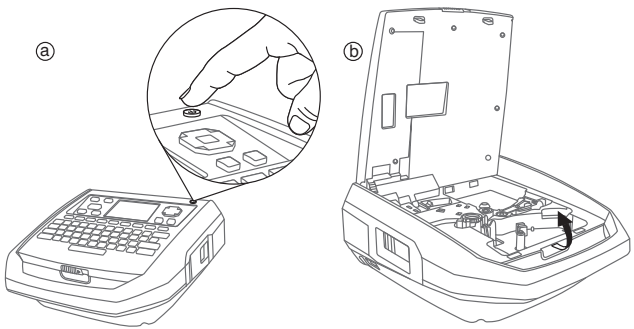
6 Repeat steps 1-4 above to remove the old wrap roller and to insert the new wrap roller.

F. Replacing the Cutter

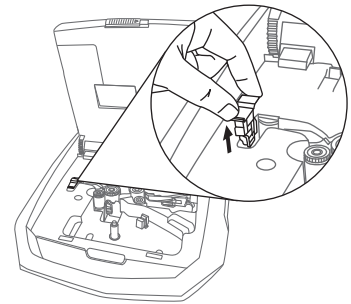
When the cutter is blunt, you need to replace it. For details on how to obtain a replacement cutter, contact your nearest dealer.

Follow the instructions here closely and dispose of the old cutter immediately. Although the cutter is designed such that you cannot touch the blade directly, you (or someone) might still be hurt if you mishandle it.

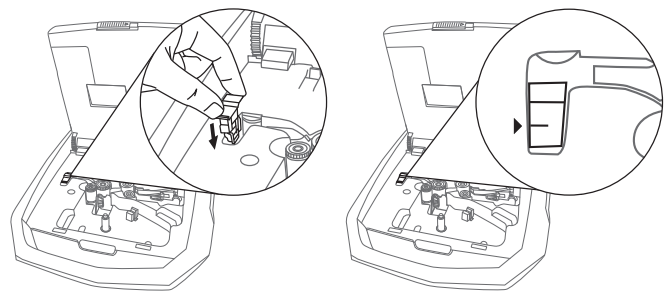
1 If the printer is still on, press ⏻ [Power] to switch it off.
2 Pull the cover latch and open the printer cover.



3 Pull out the cutter.



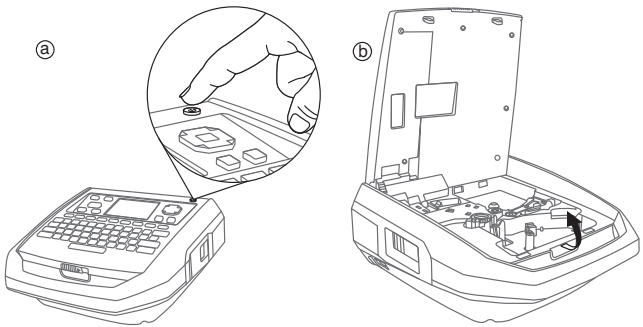
4 Dispose of the old cutter right away, in compliance with local regulations on the disposal of such items. Do not touch it anywhere other than the cutter's handle (see figure above).
5 Install the new cutter. It is inserted properly when the arrow and line are inline as shown.



6 Close the cover firmly so that you can hear and feel that it latches.

G. Replacing the Ribbon Cartridge

1 Pull the cover latch and open the printer cover.

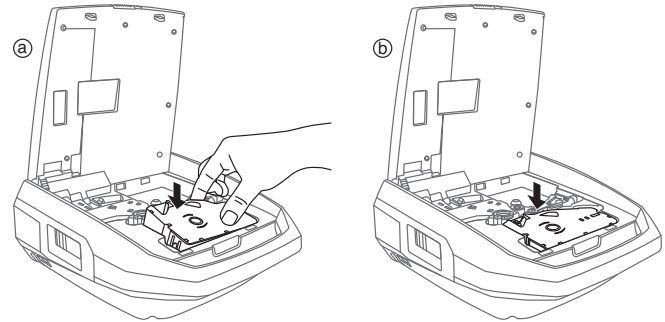


Within the printer, near the bottom right hand corner, you should be able to find the ribbon cartridge.

2 Check that the printer ribbon is not trapped between the printhead and the platen roller.

If it is and the printer is on, press the [Maintain] quick key to to home the printhead.
If the printer is off, switch it on and the printhead should home automatically.

3 Grasping the finger tab of the old ribbon cartridge, pull the cartridge up, as shown in the diagram below.

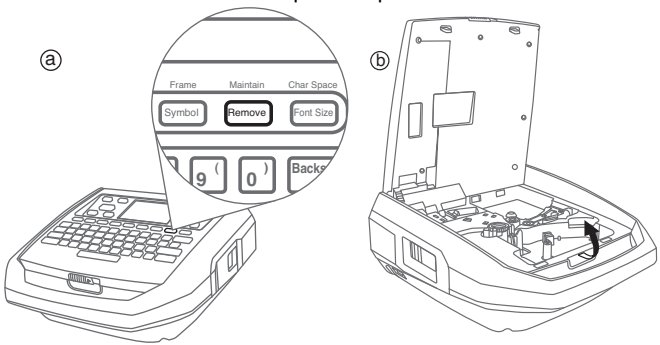


4 Grasping the finger tab of the new ribbon cartridge, insert the cartridge with its label facing up, as shown in the diagram above.
5 Ensure that the printer ribbon is right over the printhead and push the cartridge slightly to snap into place.
6 Close the cover firmly so that you can hear and feel that it latches.

To clear the printhead area of used ribbon, turn the top spool of the ribbon counterclockwise.

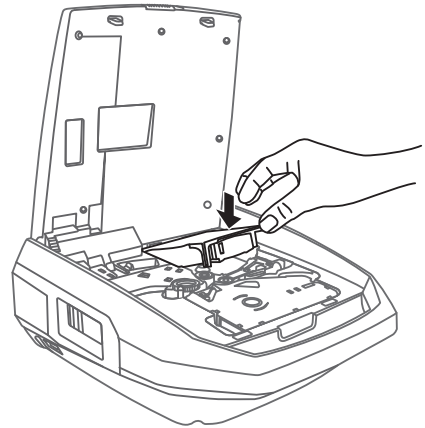
H. Replacing the Heat-shrink or Label Cartridge

1 Press the [Remove] [Remove] quick key.
2 Pull the cover latch and open the printer cover.



3 Remove the cartridge.
4 Holding the replacement media cartridge with its label facing up, insert it into the cartridge holding area (see the next figure) and press it down lightly.

The cartridge should fit in snugly. If it doesn't, pull the media channel latch downwards to enable the cartridge to move into place. (The latch is between the media cartridge and the ribbon cartridge.)



5 Close the printer cover firmly so that you can hear and feel that it latches.

7. Troubleshooting

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A. Introduction

In this chapter, detailed instructions are given on how you can:

- Manually load an externally fed tube
- Easily remove a tube/label that is not ejected, not fed properly or jammed
- Easily remove a jammed printer ribbon
- Solve other problems, for example insufficient cutter depths, blank display, no printing, and so on.

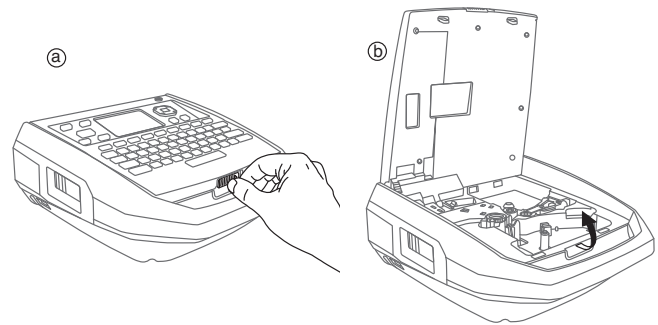
A listing of probable error messages and recommended actions is also provided at the end of this chapter.

B. If the externally fed tube is not autoloaded...

You do not need to power off the printer. But if the printer was off before the tube was inserted, switch on the printer.

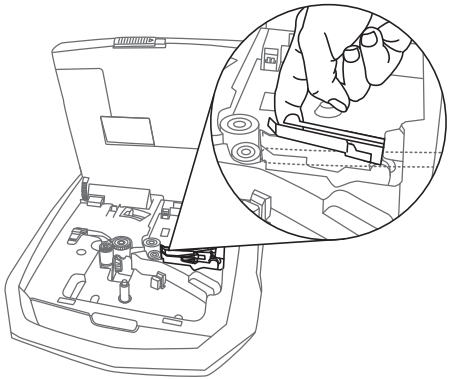
If the printer did not autoload the tube or the heat-shrink tube that was fed in externally, you can load the medium manually by following these steps:

1. Pull the cover latch and open the printer cover.

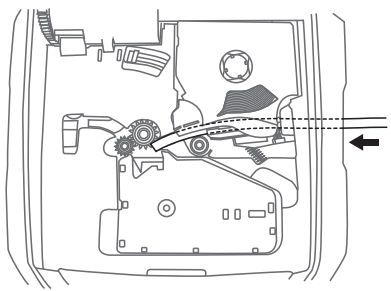


2. Ensure that no media cartridge has been installed.
3. If you are using small tubes (which may be too soft), you may need to lift the flap of the media channel latch so the tube can

go through smoothly.



4. Continue inserting the tube into the printer, ensuring that the inserted tube reaches the platen roller.



5. Close the cover and you can continue with the editing or printing.

Be careful not to scratch the printhead.

C. If the loaded tube/label cannot be removed...

Do NOT pull the tube/label to remove it.

If a jam happens, refer to the next section “D. If the tube/label is jammed...”

1. If the printer is operating, press Cancel Print [Cancel Print] to cancel the print job.
   If printer is not powered, press ⏻ [Power] to switch it on.

2. Press Remove [Remove].
   Alternatively, feed forward the tube/label by entering [Menu] > Feed > “Forward”.

   Use the Forward function only when the tube/label is not ejected or fed properly. Feeding the medium continuously can damage the tube/label or wind the ribbon around other parts, causing a jam.

3. Remove the tube/label.

D. If the tube/label is jammed...

During printing, if and when the tube/label is jammed, the printing will stop. The LCD screen will also display a message indicating where the jam has occured.

Do NOT pull the tube/label to remove it.

When the jam message appears:

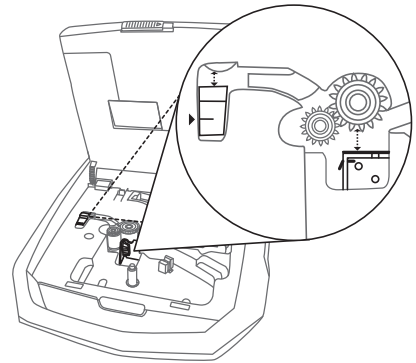
1. Perform preliminary checks.

a. Press [OK] [OK] to continue.

If you happen to have turned off the printer after the message was displayed and as a result cannot clear the jam according to the messages, switch on the printer again by pressing [Power].

b. Pull the cover latch and open the printer cover.

c. Check if the cutter and the printhead are in Home positions.



If they are not, press [Maintain] [Maintain] to force them to Home positions. If they still do not home, contact the Brady Tech Support.

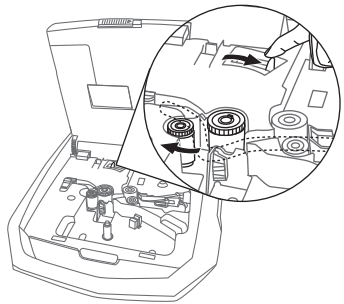
d. Check whether the printer ribbon is jammed.

If it is jammed, go to the next section "E. If the printer ribbon is jammed..."

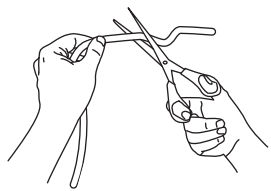
If the ribbon is not jammed but cannot be removed easily (e.g. it winds itself around some parts inside the printer), proceed to the next step without pulling the ribbon.

2. Clear the media jam.

a. Pull the wrap roller latch downwards (to move the wrap roller away from the platen roller) and while holding it there, remove the jammed portion.



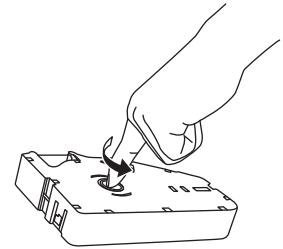
b. Cut the bent or damaged portion of the jammed medium or the printed portion (if any) of the medium.



c. If the tube/label is in a cartridge, reinsert the cartridge into the holding area.

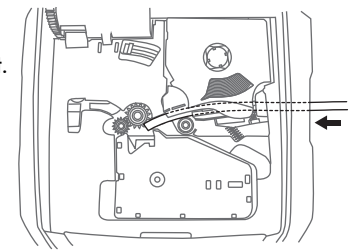
3. Prepare to print again.

a. If the printer ribbon is slack, use your finger to turn the reel in the direction indicated on the cartridge to take up the slack.



b. Close the cover firmly so that you can hear and feel that it latches.

c. If the tube was fed externally, reinsert the tube into the printer inlet.



d. Press Maintain [Maintain] to move the cutter and the printhead to Home positions.

e. For further detailed instructions, refer to the respective sections in “3. Printing on Selected Medium”.

E. If the printer ribbon is jammed…

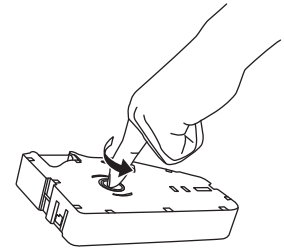
If the ribbon winds itself around some parts inside the printer and causes a jam, make sure that the printhead and cutter are at the Home positions.

To home the printhead and the cutter:

1. Power off and on the printer to home the printhead and cutter.
2. Press Remove [Remove] and wait until the external media has been ejected.
3. Remove the ejected medium.

To clear a printer ribbon jam:

1. Press and hold the wrap roller lever.
2. Try to unwind the jammed ribbon and remove the ribbon cartridge.
3. Once removed, if the ribbon is slack, use your finger to turn the reel in the direction indicated on the cartridge to take up the slack.

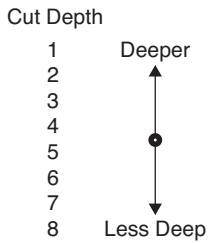


For detailed instructions on how to replace the tube/label cartridge or the ribbon cartridge, please refer to the relevant section in “6. Maintaining Your Printer”.

F. If the half-cuts are not deep enough...

If the cutter does not half-cut the tube or label properly, you can do the following:

1. Change the cut depth.
   Enter [Menu] > Setting > Cutter > Half Cut > "Depth".
2. Select a cut depth setting that is lower than the current. (The lower the setting, the deeper the cut depth.)



3. If the current cut depth is already lowest at level "1", this means that the cutter is worn out. Replace the cutter with a new blade.
   For detailed instructions on how to replace the cutter, please refer to the "E. To replace the cutter" section in the chapter, "6. Maintaining Your Printer".
4. If the cutter still does not cut properly with a new blade at the lowest cut depth, contact Brady Technical Support.

For detailed instructions on how to replace the cutter, refer to the "To replace a cutter" section in "6. Maintaining Your Printer".

G. If the display remains blank when power is on...

1. Turn off the printer and make sure that the AC adapter is securely plugged into the power outlet and is connected to the main unit. Then turn the power back on.

   Alternatively, check if you are using an AC adapter that is made for use with the printer. Using another AC adapter could result in circuit damage or overheating.

H. If the input display does not appear...

This can happen when bad input data has been received.

Restore the printer to initial (factory) settings:

1. Enter [Menu] [Menu] > Settings > Factory Settings.
   A message appears, asking for confirmation.
2. Press [OK] [OK].
3. If the input display still does not appear, contact Brady Technical Support.

I. If the printer does not print (properly or not at all)...

1. Make sure character data has been input. (If no character data has been input, printing cannot start.)
2. Confirm the size of the tube/label loaded in the printer and then select the same size on-screen.
3. Check if the ribbon cartridge has been installed properly. Reinstall the ribbon cartridge if necessary.
4. If the tube/label is crushed, twisted or somehow out of shape, cut off the misshaped portion and then install the medium again.

   Do NOT use misshapened printing media.

5. If the printhead is dirty, clean the printhead. For detailed instructions, refer to “B. To clean the Printer” in “6. Maintaining Your Printer”.

J. If you see this message…

The messages in this section are displayed in alphabetical order.

	Message	Description	Action
1	**Barcode is not supported by current tag settings. Barcode only supported for 9 and 12 mm labels using 'General' application.**	The medium may not be suitable for barcode printing.	Use only: • Labels, and • General (horizontal) text orientation. Note: 9mm labels support only 1 line of text (including barcodes) while 12mm labels support up to 2 lines. Depending on the type selected, the valid data range may vary. The segment has to be auto-sized or >25 mm if fixed size. Only upper-case characters and digits 0-9 are allowed.
2	**Insufficient power. Switch to AC or a new battery to continue printing.**	The power in the battery is running low and may not be sufficient to provide the required power to continue with printer operations.	To carry on with printer operations, please plug in AC adapter. If not, power off printer.
3	**Data cannot fit inside tag.**	The input data exceeds the border of the tag.	The tag only allows a maximum number of characters/symbols to be input. To add more data, change the settings accordingly.
4	**Error occurred in importing or exporting file. Re-try the operation.**	An attempt to import/export a file from the printer to a USB flash drive is unsuccessful.	Check if USB flash drive is functioning properly. Confirm file destination folder and import/export the file again.
5	**Error opening file.**	An attempt to open a file even though no files has been selected in that folder.	Confirm the file folder and reopen the file.

	Message	Description	Action
6	**External media loading failed. Remove media and try again.**	External media was not autoloaded.	Manually load the tube/label. For instructions, refer to the "If the externally fed tube is not autoloaded..." section in "7. Troubleshooting".
7	**File name cannot be blank.**	An attempt to name a file with invalid characters.	Use only valid characters, such as numeric digits (e.g. "0", "1", "2", "3") , lower or uppercase letters (e.g. "a", "b", "c", "A", "B", "C"), underscore ("_") and period (".".
8	**Insufficient media.**	The remaining media may not be sufficient to complete the current print job.	If you choose to proceed with current print job, you may have to replace the medium once it is finished. Alternatively, you can start the print job with another media roll/cartridge with sufficient length.
9	**Insufficient ribbon.**	The remaining ribbon in the cartridge may not be sufficient to complete the current print job.	If you choose to proceed with the current print job, you may have to replace the ribbon cartridge when it becomes empty. Alternatively, you can start the print job with another cartridge with sufficient length.
10	**Invalid value entered. Enter correct value and try again.**	Non standard data entry or format input.	Make sure that the data entry follow the standard convention.
11	**Media cartridge installed. Remove media inside printer and try again.**	An attempt to load an external medium into the printer even though a media cartridge is installed in the printer.	Open the printer cover and remove the media cartridge inside before trying to load an external medium into the printer.
12	**Media jammed at pinch/feed roller. Open cover and remove media.**	Tube or label or heat shrink tube is jammed at the pinch/feed roller.	Open cover and remove media.

	Message	Description	Action
13	**Media jammed at platen/ wrap roller. Open cover and remove media.**	Tube or label or heat shrink tube is jammed at the platen/wrap roller.	Open cover and remove the medium.
14	**No external media. Load media or press Cancel Print to stop printing.**	The end of media (external only) is detected during printing.	Please load a new medium and press [OK] to continue printing
15	**No file to delete.**	An attempt to delete a file even though no files has been selected in that folder.	Confirm the file folder and delete the file again.
16	**No file to export.**	An attempt to export a file even though no files has been selected in that folder.	Confirm the file folder and export the file again.
17	**No file to import.**	An attempt to import a file even though no files has been selected in that folder.	Confirm the file folder and import the file again.
18	**No more media. Load media and press OK to resume printing.**	The end of media (external or cartridge) is detected during printing.	To return to the Tag editor, select [Cancel] and press [OK]. To print again, reload the medium and press [PRINT].
19	**No media to remove.**	An attempt to eject the media even though there is no media in the printer.	Continue with printer operations. If message appears again, contact Brady Technical Support.
20	**No more ribbon. Change cartridge and press OK to resume printing.**	The end of the ribbon is detected while printing.	Replace the empty ribbon cartridge with a new one.
21	**Error mounting USB drive. Remove your drive and try again.**	You are trying to read from a USB flash drive. However, the printer cannot detect its presence.	Ensure that the USB flash drive is connected properly. Re-insert if necessary.

	Message	Description	Action
22	**Overwrite existing file?**	An attempt to save a new file which has the same name as an existing file in the same folder.	To overwrite, press [OK]. To abort operation, press [CLOSE].
23	**Padding cannot be added for alphabets.**	Invalid characters are used in padding.	Note: The only valid characters that can be used in padding are zero (“0”) or a blank space (“ ”). For more details, refer to the “H. To Add Serialization to a Tag” section in “5. Advanced Functions”.
24	**[MEF001] Power off printer. Contact Brady for Tech Support.**	Error MEF001 is detected.	Contact Brady Technical Support.
25	**Printer cover is open.**	An operation was attempted while the cover is opened.	Close cover and try again.
26	**Serialisation values do not correspond. Check the values and try again.**	This message will appear when the end value of the serialization cannot be reached based on the input. For example, if the increment is “2”, the end value “9” cannot be reached.	Double-check the start, increment and end values. For example, if the increment is “2”, change the end value to an even number such as “8” or “10”. Alternatively, change the increment value to an odd number such that the end value “9” can be reached.
27	**Power off printer?**	If the power button is pressed, this message will appear to confirm whether you want to swtich off the printer.	To power off, Press [OK]. To continue with printer operations, press [CLOSE].
28	**This may cause data to be truncated. Continue?**	This message will appear when converting properties of tag or converting job media.	To continue, press [OK]. To abort operation, press [CLOSE].
29	**Unable to connect to PC. Check your cable and try again.**	An attempt to cancel the PC connection mode without a USB cable connection.	Go to PC connection mode. Check that the USB cable is firmly connected or not damaged.

	Message	Description	Action
30	**Unknown Error. [MEF100] Power off and on and try again.**	Some type of error occurred while printing was in progress.	Restart the printer. If the same message appears again, contact Brady Technical Support.
31	**Required upgrade file not found on USB drive.**	An attempt to locate the upgrading file is unsuccessful.	Confirm file folder. For instructions on how to upgrade the printer, refer to the "J. USB Flash Drive Connection" section in "5. Advanced Functions".
32	**Wrong Media. Please load the correct media.**	The user selected medium is different from the actual medium detected via the SMART cell in the printer.	If the error lies in the user selection, please reselect the correct medium. If a wrong medium is loaded, please replace it with the correct medium.

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